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**AUG/97**

# Mac

## ADDICT

Apple's New

# Mac OS

is...

# GRRRR

**16** page visual  
guide inside

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PowerPC

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Macintosh



PowerBook 3400c





*There's no shortage of things you can do with our best-selling PowerBook 1400, either. Play CD-ROMs, surf the web\* and send e-mail to your boss back at the office.*

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At the risk of sounding immodest, there's no end to what you can do with the new PowerBook 3400. To learn more, visit [www.powerbook.apple.com](http://www.powerbook.apple.com). Or call 800-538-9696 for the name of the Apple reseller nearest you.





# The Mac OS Report

Number two in a series—the facts about Mac OS 8

Mac OS 8 is coming. It will give you, and millions of other Macintosh® users, a whole new way of working.

It will give your Apple® Macintosh computer (or, for that matter, any other Mac OS computer of your choice) a dramatic new look and feel, along with all kinds of enhanced capabilities for accessing the Internet.

It will also set an entirely new standard of powerful, intuitive computing—a standard the competition can try to catch up to. (Again.)

## A new way of working

The moment you start using Mac OS 8, you'll feel the difference: you'll find yourself accomplishing more in less time. A multi-threaded Finder™ lets you execute multiple tasks simultaneously, such as launching applications and copying files. Mac OS 8 includes new information-management tools, such as contextual pop-up menus and spring-loaded folders, that give you quicker and easier access to all your information. A scalable environment lets you either limit your menu and window options, or expand them—whichever works better for you. A new, dimensional look makes the interface more dynamic and engaging than ever. And Mac OS 8 also includes the latest versions of QuickTime® with its MPEG support,

QuickTime VR and QuickDraw® 3D.

How easy is it to get going with all these new technologies and features?

Very. Because our new installer and setup assistants take you through each step of configuring your new system

software. Once you're up and running, PowerPC™-native code improves your performance. Mac OS 8 is also completely compatible with all PowerPC and 68040-based hardware and software.

## A new way of accessing the Internet

Mac OS 8 includes TCP/IP and PPP for easy network or modem access direct from the Finder. You get Netscape Navigator™, Microsoft® Internet Explorer™ and the PointCast Network™. And a new Internet Setup Assistant makes it easier than ever to get on the Net, whether you're doing it from home with a modem or from work with a high-speed connection. Personal web sharing is standard, so you can turn any Mac into an Internet web server. And Java™ support is built in, so you can run Java applications just as though they were any other desktop applications. (If you were wondering, Windows® 95 can't do this.)

## And more advancements are on the way

Mac OS 8 is one of the most significant advances in OS technology ever. And it's just the beginning—additional upgrades are planned. And our support for the Mac OS will continue for years.

At the same time, we're also working on an industrial-strength OS, code-named Rhapsody, that will offer features such as protected memory, preemptive multitasking and symmetric multiprocessing. Rhapsody will also provide backwards compatibility, so you can be sure that the vast majority of your Mac OS apps will run on Rhapsody, too.

In other words: Apple is still developing the most innovative, user-friendly and consistently superior products on the market. That's one part of our system that won't change. To learn more, visit [www.macos.apple.com](http://www.macos.apple.com).



If you want to use Netscape Navigator to browse the Net, you'll like this: it's an integrated part of Mac OS 8.



Microsoft Internet Explorer fans will be happy to know that this powerful web browser is also built right in. Choice is just one of the many Mac OS 8 mottos.



It's the PointCast Network. It comes with Mac OS 8. And it grabs the news you want directly off the Net to create customized desktop news pages. Daily. Hourly. As often as you want.



When you get Mac OS 8, you also get built-in Java support, so you can run both local and network-based Java software just like other desktop applications.



## Mac OS

Mac OS has always been the easiest and most intuitive of all operating systems. Now, Mac OS 8 brings this kind of computing to a whole new level.





Even the icons  
are upgraded!

AUGUST 1997

# Mac ADDICT 12

## highlights

### 26 **A Visual Tour of Mac OS 8**

It's here at last—the Mac OS that used to be called Copland before Apple killed Copland and then renamed the whole project Tempo and eventually settled on a real name of Mac OS 8. Whatever. The point is, Apple's latest Mac OS is simply fantastic and even includes some Windows-stomping features. Here's the ultimate 16-page visual guide to what's new in Mac OS 8. **BY DAVID REYNOLDS**

### 43 **The Frugal Designer**

Not everyone wants to go the professional route just to create a brochure, business card, or flyer. If that sounds like you—or if you just lack the big bucks necessary to purchase QuarkXPress and a fast Mac to run it—then it's time to check out these five inexpensive design programs. And, yes, all but one includes gratuitous flamenco dancer clip art.

**BY NIKKI ECHLER**

### 50 **This Old Mac**

Within these pages are the best tips and hints you'll find anywhere on the planet for upgrading an LC 475, 500 series, 630, and their Performa equivalents. **BY T. KELLEY BOYLAN**

## how to

### 76 **Make a Warcraft II Scenario**

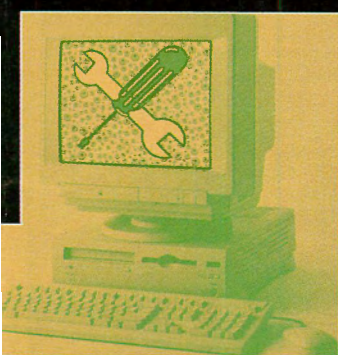
There's more to setting up a Warcraft battlefield than simply plunking down a few Orcs. Find out how to create a war that works.

### 80 **Use Web Style Sheets**

Style sheets let you use dinky lines of text to create snappy page designs that download quickly. We'll teach you the language of style sheets.



Hey! Cut that out! Painful creativity?  
Naa...but definitely creative.



What's that flathead doing up  
there? Gimme a Torx!

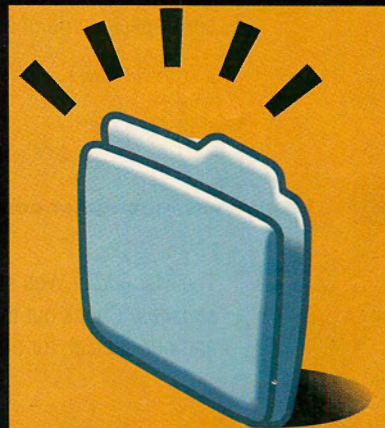


What rhymes with  
Orc and starts  
with D? Not me.  
Must be you. Ha!

The 8 was  
created in  
Adobe Illustrator  
and Photoshop.  
A fifth plate of  
metallic gold  
was overprinted  
on a shadow  
area of CMYK.

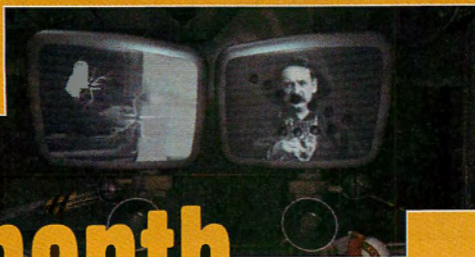
# 8

Adam, file  
those marks  
back in the  
folder where  
they belong.





Who is this  
man? And why  
is he on my TV?



# every month

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Mac OS 8, Web browsers, piracy, and a sure route to hell.

## 10 Letters

More ways to know you're a Mac addict, something stupid about a dog, and other nonsense.

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## 24 Cravings

Not just your everyday products. Heck, no. These little jewels are the awesome, killer, stunning items of the month.

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Get the skinny on Illustrator 7.0, the PowerBook 2400c, VectorTools 2.0, F/A-18 Hornet 3.0, Claris Emailer 2.0, and a bagload of other products.

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Fan noise, more memory dilemmas, upgrades, and other help.

## 88 PowerPlay

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## 112 Shut Down

The last word on computing in the '90s.

## the disc



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In case you missed the message plastered all over the cover, we've got a sneak-peek demo of Mac OS 8! Plus, tons of super shareware and demos.

## online

<http://www.macaddict.com>

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The MacAddict Web site just keeps growing. We've added a couple new *subsites*. Check out the Practical Mac site (<http://www.practicalmac.com>) and our special, for-a-limited-time-only site for info on Mac OS 8.

# Mac ADDICT

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Associates, Inc., 720 Post Road, Scarsdale, NY 10583

### Volume 2, Issue 8

MacADDICT (ISSN 1088-548X) is published monthly by Imagine Publishing, Inc., 150 North Hill Drive, Suite 40, Brisbane, CA 94005, USA. Application to mail at Periodical class postage pending at Brisbane, CA, and at additional mailing offices. Newsstand distribution is handled by Curtis Circulation Co. Basic subscription rates: one year (12 issues + 12 CD-ROMs) U.S. \$39.90, Canada \$43.95, U.S. prepaid funds only. Canadian price includes postage and GST (GST 128220688). (IPM 0962392) Outside the U.S. and Canada, price is \$53.95, U.S. prepaid funds only. For customer service, write MacAddict, Customer Service, 150 North Hill Drive, Suite 40, Brisbane, CA 94005. POSTMASTER: Send address changes to MacAddict, P.O. Box 58251, Boulder, CO 80328-8251. Imagine Publishing also publishes *boot*, *Ultra Game Players*, *Next Generation*, *PC Gamer*, and *The Net*. Entire contents copyright 1997, Imagine Publishing, Inc. All rights reserved. Reproduction in whole or in part is prohibited. Imagine Publishing, Inc. is not affiliated with the companies or products covered in MacAddict. Standard Mail enclosed in versions: A4, B, B2, B3 PRODUCED IN THE UNITED STATES OF AMERICA.

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Patsy, could you pass the hoochie pipe, please?  
What's this obsession with skits? M&Ms vs. Skittles,  
you make the call—DUH. Um, anybody gotta job lede?





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# editor's note

Random thoughts that have lots to do with lots of important stuff.

OK, as usual, my Editor's Note is late. (It's not my fault, really. There were a bunch of phone calls to return and letters to answer and issues to plan and Web sites to check out and new products to try and shareware to qualify and, well, you get the idea. But unlike usual, this time it is *really* late. That means that you get my once-a-year oddball collection of things that have been on my mind lately.



Number one: Mac OS 8. You'll get the full story inside, including screenshots of just about everything that's new. But let me state right here and right now that this new OS is indeed great. The ability to copy multiple files is going to save me tons of time. Being able to customize the look of the Finder (the way I can with folders), along with the new tabbed windows feature, is going to reshape the way I set up and use my Desktop. And, although it took me a few tries to get used to it, having windows close automatically is a lot like having someone run along behind me and pick up my clothes as I take them off after work. Look for more Mac OS 8 tips and hints in future issues.

Number two: browsers.

I admit it: I've been using Microsoft Internet Explorer as my main browser. And I feel guilty about it because I just know I'm playing into Microsoft's hands. Get me hooked, knock the other browsers out of the picture, and then start charging me, or pushing ads at me, or adding Windows interface elements, or any other number of mean and evil things.

But, geez, I gave up using Cyberdog (still too buggy for my tastes), and when Netscape

Navigator hit version 3.x, the memory requirements skyrocketed, and the program started crashing about, oh, every three seconds. Internet Explorer, on the other hand, has been stable, requires relatively little memory, and is easy to manage.

Fortunately, Netscape has a Mac beta available of its latest version of Navigator—Communicator. This new version promises to take up only 4MB of RAM and, along with Mac OS 7.6.1 (and Mac OS 8), provide better stability. (It also has a bunch of other new features, although these are geared mostly toward corporate users.) Now if only Netscape would do something about its awkward bookmark management features and its ugly interface and....

Number three: software piracy.

"Last week, I purchased a used Power Mac 9500. The owner was upgrading and transferred all of his software to his new computer. However, his 9500 still had Photoshop, Illustrator, SiteMill, PageMill, After Effects, Director, LogoMotion, TextureScape, Microsoft Office, and many others installed. Will I go to hell if I do not erase those unlicensed programs?"

Religious issues aside, I doubt seriously that you'll go to hell if you keep—and use—the programs. To purgatory, maybe; to heck, definitely. But to hell, no. (Of course, if this were shareware and you decided to keep it without paying, then you'd definitely go to hell.)

We all know that software piracy (and keeping and using programs you didn't buy is piracy) is illegal as well as just plain wrong. Yet, even the most ethical among us might be tempted to keep programs such as these, which sort of fall from heaven. What would we at *MacAddict* do? Darn good question. And one that, fortunately, we aren't facing. But we do hope that you'll decide to pay for anything you end up using a lot—or at least that you feel incredibly guilty if you don't. —Cheryl England

**T**hese days, one Web site just isn't enough. For example, it's not possible for the *MacAddict* Web site to cater to absolutely everyone's needs. Rather than grow our site to the size and unwieldiness of, say, Apple's site, we opted to start partnerships with other quality Mac sites. As partners, we form a series of links that we're calling the *MacAddict Network*. Note, however, that *MacAddict* does not control or guarantee the content of any of our partner sites, although we do believe the sites we've chosen are of top quality and interest to you, our readers. Our initial foray includes 11 great sites that we encourage you to visit. You'll also find links to these partners on our Web site (<http://www.macaddict.com>).

**AppleJedi** (<http://www.saracen.com/applejedi.html>) An emag for evangelists

**Complete Conflict Compendium** (<http://www.quillserv.com/www/c3/c3.html>) An incredible listing of known conflicts plus some troubleshooting tips

**IconFactory** (<http://www.iconfactory.com>) Icons and icon applications

**Inside Mac Games** (<http://www.imgmagazine.com>) An emag for gamers

**The Macintosh Guide Book** (<http://www.macconnect.com/~davis/kyle/macguide.html>) A comprehensive guide to Macs and Mac compatibles

**MacCentral** (<http://www.maccentral.com>) Mac news, reviews, and more

**The Daily Mac OS Info Page** (<http://home.earthlink.net/~mdw83/>) Lots of news, links, and even PowerBook stuff

**MacSurfer** (<http://www.macsurfer.com>) Links to top Mac articles and sites

**The Practical Mac** (<http://www.practicalmac.com>) Troubleshooting and detailed how-to information

**Rhapsody Info** (<http://rhap.pcreations.com>) News and rumors about Apple's upcoming OS, Rhapsody

**Version Tracker** (<http://www.versiontracker.com>) Listings of current version numbers for tons of Mac software

Introducing the MacAddict Network

Where will you go if you use those pirated programs? To purgatory, maybe; to heck, definitely. But to hell, no.



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"WAV is the spiffiest word processor to come along in several years. It's elegant and intuitive, and its integrated Internet services are a godsend."

— Mac Addict, March '97

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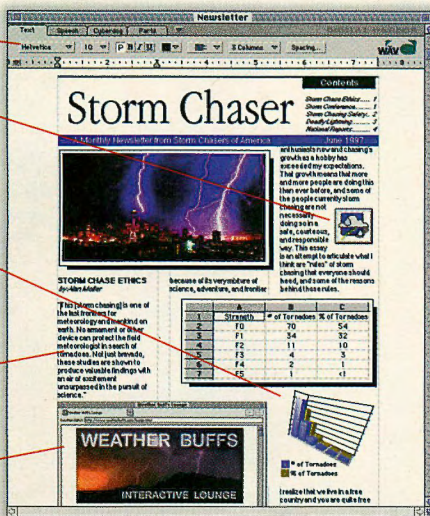
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\*WAV installs complete with OpenDoc, Cyberdog (Net Browser, E-mail, Net Search, CyberButton, Net Management), C100™ Components LEXI & C-TextBox, and Apple Live Objects Essentials (QuickTime™ Viewer, Image Viewer, 3DMF Viewer, Apple Draw, Apple Audio).



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Windows NT version 4.0. \*According to the MIT Consulting Group benchmarking study, Power Mac is, on average, 50% faster while running Adobe Photoshop 4.0. © 1997 Apple Computer, Inc. All rights reserved. Apple, the Apple logo, Mac, Macintosh, Power Mac and Power Macintosh are registered trademarks of Apple Computer, Inc. PowerPC is a trademark of International Business Machines Corporation, used under license agreement. Adobe is a registered trademark of Adobe Systems Incorporated or its subsidiaries. Microsoft, Windows and Windows NT are registered trademarks of Microsoft Corporation. All other product names are trademarks or registered trademarks of their respective companies.

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9600/200MP

PowerPC



So why is it your parents still don't get

what you do for a living?

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[www.powermacintosh.apple.com](http://www.powermacintosh.apple.com)







# letters

A conspiracy theory, addiction extremes, insanity, and more madness.

## This Month

**WRITE TO US:** MacDudes, MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005, or send email to [letters@macaddict.com](mailto:letters@macaddict.com).

**FOR CD PROBLEMS:** Go to <http://support.imagine-inc.com>.

**FOR SUBSCRIPTION QUERIES:** Please call 800-666-6889.

### GROAN

If my son (Damian) bought a Mac 9500 (yeah, that's my boy) and really liked it and got MacAddict and joined the Evangelistas in a Million Mac March on D.C., would he be called a MacaDamian nut? —DAN VINES, FORT SMITH, AR

Ever since I first heard the call of the wild eep, I've been mesmerized by its cry. And yet, I have a burning question that I just have to ask someone. I've searched far and wide for a willing and wise ear for my query, and feel that your magazine has ended my long search. Having said all that, my question is this: If there is such a thing as the wild eep,



Federico Jordan

then what-  
ever happened to  
the domesticated eep?

—REBECCA ANN MERRILL

*The domestic variety is of the genus boring: b. eep, or beep, for short. Less intelligent varieties of b. eep are known as "Simple Beep."*

### BIG ONES, AT THAT

My friends and I just finished a half hour of killing each other in Marathon, using the floor plan you included in your (May/97) CD. And we would just like to say...man, do you guys ever have a lot of guns in your office! —GUINEVERE ORVIS

### NOT ANYMORE

I broke up with my girl because she bought a PC. Do I have a problem? —JEFF MORRISON

### GET RID OF THE WIFE

I have all the issues of MacAddict plus other Mac magazines that I have been subscribing to for the past four years. I am reaching a point where storage space is a problem around my workstation at home. My wife wants me to get rid of my old magazines. It's very strange to say, but I find it hard to part with my old magazines. Is this a symptom of a Mac addict? How can I save my magazines? —JOSEPH SCATLIFE

—JOSEPH SCATLIFE

### LOONIES! Coo, Coo!

Cheryl England's Mac may wear headphones, but mine has a stuffed armadillo on top of it. (That's stuffed as in toy, not stuffed as in "Big Bob's Taxidermy: You snuff 'em, we stuff 'em.")

The armadillo's name is Hal. My roommate's ex-boyfriend won him in Las Vegas. The boyfriend went, and I got the armadillo. And I bet that's just what you wanted to know, too.

Completely by coincidence, I happened to paint my nails the same slightly hideous color of green that you use in your How To section about an hour before the mag arrived. I've never written you before. Now you see why. <Add maniacal laughter here.> —ALEXANDRA GELATT, NEW YORK, NY

When I pulled my May issue of MacAddict out of the mailbox I discovered an evil Mail Fraud!!!! The top left corner of my magazine—the part where it said "100% PC Free"—was half ripped off. I suspect that it's some evil government plot to drive Apple out of business and have Microsoft rule the world!!!! Hahahahahaha! Oh my god! A big white van just pulled up in front of my house and three people wearing white clothes jumped out with a net and a funny looking jacket!!!! Help!!! Hahahahahahahahaha.

—MARK FRENKEL, HUNTINGTON WOODS, MI

### UH, NONE?

OK, how many people can say they have their car speakers hooked up to their Performa 450? —JERRY NASH, SOUTH DAKOTA

### UMMM, It's TOO LATE

In "Welcome to MacAddict Lab" (May/97, p46), you compared the mass of the scanners on the moon and on Earth. Ummm, they should be the same. Mass never changes, even in a different gravitational field. I can only assume you meant weight (which is dependent on the magnitude of "g"). I don't really care, I just don't want you guys to look stupid. —JERUD CRANDALL, RALEIGH, NC



**GET ON, GET ACTIVE.** Talk to us and talk to other Mac addicts on the Web site.

## RECENTLY SIGHTED

### MAX COMES HOME

Straight from the home workshop of Andy (14) and Joey (12) Cooper comes this handy replica of Max. Andy and Joey first made one for themselves and loved it so much they thought we'd want one. (We love ours, too.) "We are

going to give you permission to do whatever you want to with Max," say Andy and Joey. "Hold CDs, back issues, mail, a little trash can, whatever—with the exception of mutilation." We wouldn't dream of it.





## FASCINATING!

As I read "Ropin' in Extensions" (May/97, p48), I noticed something. You can rearrange the letters in the Microsoft Word/Excel "vba en olb" extension to form such interesting phrases as "Venal Bob," "Navel Bob," and "oven blab." Just thought you'd like to know. —SHAY FULTON

I played tennis tonight. Pretty fun. I took Canton along and tied him on the side. The pup has lost his tennis privileges, though, as he barked the whole time. Apparently, he wanted to chase the ball. —WILLIAM TANGEMAN

## BRILLIANT!

I guess Reuben Reynoso isn't married...or somebody would have told him to shut up by now! —Tessa Cain

*We haven't heard from Reuben in a month or so. Maybe he got married....*

## BEWARE THE CURSE

I just read your Editor's Note in the May issue, which I found very funny. But Macintosh owners aren't the only people who display the seven bizarre behaviors. I have never owned a Mac, and I display all seven.

### 1. We talk to them.

I talk to my Wintel all the time, although most of what I say can't be reprinted in your respectable magazine. Well, at least without using characters like !@#\*!@.

### 2. We name them.

Again, mostly unprintable, except on a good day when I call mine Borg and my hard drives C of Borg and D of Borg.

### 3. We decorate them.

That's where the Apple logo stickers go.

### 4. We make them produce sounds.

Actually, Windows 95 makes plenty of sounds on its own...as much as it crashes or has an error, one would think I was obsessed with sound files.

### 5. We save them.

Can't get them out of the house quick enough...they just keep piling up as I try to upgrade and keep up. So I've given up on throwing them away...now they are doorstops and flower presses.

### 6. We assign feelings to them.

Usually the feeling is anger.

### 7. We're possessive of them.

"Hey, get away from my PC...you're messing up my shot!" or "No, it's MY PC...I get to throw it from my third-story window."

As you can see, Wintel owners are not that dissimilar from Mac owners. We're people, too! We've just had one or two bad things happen in our lives and ended up with a PC. Some of us had no choice—darn family curse of the hand-me-down PC. —PATRICK SETTLE

## FINALLY! THOUGHTFUL COMMENTS

Of special interest to me in the interview with MacSoft's vice president, Peter Tamte (May/97, p96), was the topic of mail order versus retail sales. I live in a fairly active retail area that draws shoppers from a wide area, yet we don't have any of the stores Mr. Tamte mentioned. If a local store sold Mac software, would I buy it from them? Certainly. But that is not an option. Although improving sales in current stores is worthwhile, more important to many of us is getting stuff into more accessible stores! Until I have a store within easy shopping distance, I need to buy via mail order. —ANDY SMITH, HANOVER, PA

In your May issue (p33), you suggest naming a folder ".downloads". I think I read somewhere that beginning a name with a period was bad and that it could possibly crash the Mac because toolbox routines begin with a period, or some reason like that. Do you know if that's true? —NATHAN LOONTJER  
*According to Apple engineers, it's OK to use the period, unless you plan to transfer the file to a Unix system. The only disallowed character in naming a file is the colon.*

## OOPSIES

In "25 Mouth-watering Gizmos" (Jun/97, p40), we said Momentum (808-947-0055) advises against plugging a modem into the PortJuggler. We were wrong. The Power PortJuggler is compatible with all fax modems.

KeyCrasher ("Ropin' in Extensions," May/97, p48) no longer is included in Now Software's Now Utilities.

Your parents  
may not  
understand  
what you do  
for a living.  
But we know  
some experts  
who do.

Apple Authorized  
Value Added Resellers  
understand exactly what  
your business needs.  
They offer custom-fit  
Apple®-based solutions  
for hardware, software,  
consulting, networking,  
training and more.

For more information  
and the VAR nearest you,  
call 800-538-9696  
or visit [var.apple.com](http://var.apple.com).



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## YOU KNOW YOU'RE A MAC ADDICT WHEN...

...you're in chemistry class, and you notice that the element Os (osmium), with an atomic number of 76, looks like Mac OS 7.6!!! —BRYAN MAMARIL

...your local television station announces technical difficulties, and you immediately diagnose them as Type 11. —DELORES ROCHELLE WALLS

...you look for the Command and I keys on your friends to catch up on the latest gossip. —STEVE DRIVER, CLEVELAND, OH





# the disc

More Mac OS mayhem per megabyte than any other morsel of CD magic.

the disc

## THIS ISSUE



**T**urn to this screen to find programs and files mentioned in the magazine. Whenever you see a disc icon in print, you'll know to come here on the CD.

## SHAREWARE



**O**ther kinds of ware, too. Click the thumb in the lower right corner to set your Internet prefs. (If you did this last month, you don't need to do it again.)

**C**lick the MacAddict logo to find out more about your fave Mac addicts than you wanted to know.

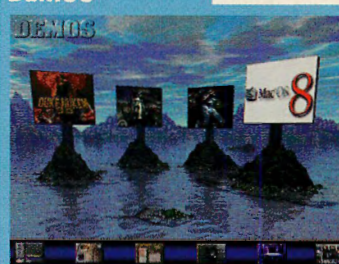


## INDEX



**C**lick here for a handy jumping point to all screens on The Disc.

## DEMOS



**S**ail to the islands of Mac OS 8, Duke Nukem 3D, Fallout, and more!

**T**urn to page 14 to see our completely cool config dialog box.

**T**his month, we debut a funky-fresh interface. You'll see it for the next few months as we work on a top-secret redesign. Oh, did I say something I shouldn't have? Hey, get away from meeeeeeeeeeeeeeeee.....  
—KT



## GETTING STARTED

1. Pop The Disc into your CD-ROM drive.
2. Double-click the MacAddict Tour icon for PowerPC or 68K machines.
3. Have fun!

## REQUIREMENTS

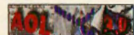
Any Mac can access the shareware, demos, and System software from the Finder. Accessing the full CD-ROM interface requires 12MB of real RAM with System 7.1 or earlier; 16MB of real RAM with System 7.5 or later.

8



To find immediate information from our sponsors, go to the index (Option-click any help screen). You also can access sponsor information from the main window in the Finder.

## AOL

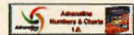


800-827-6364

<http://www.aol.com>

America Online offers access to the world of online news and information, interactive magazines, finance, entertainment, email, free software, shopping, and more. With a point and a click, you can explore the vast resources of the Internet. Sign on and receive 15 free hours.

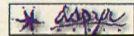
## Adrenaline—Numbers & Charts



<http://www.adrenaline.ca>  
418-658-9909

Adrenaline Numbers & Charts is the first spreadsheet and charting package optimized for today's Mac OS System software. Numbers & Charts combines a Microsoft Excel-compatible spreadsheet with advanced, true 3D charting capabilities to make your data stand out.

## Aspyr Media—Mah Jong Parlour



512-708-8100

<http://www.aspyr.com>

Play the game of tiles and strategy—solo, networked, or over the Internet. Mah Jong Parlour is the true game of mah jong, which is similar to gin rummy but has intriguing subtleties for engaging gameplay. MJP is easy to learn and a challenge to master!

## Bungie—Marathon Infinity



800-295-0060

<http://www.bungie.com>

Marathon Infinity contains Blood Tides of Lh'owon, a brand-new 30-level scenario; Forge, Bungie's own powerful Map Editor; and Arvil, a single tool for easy modification of shapes, sounds, and physics models.

## Earthlink—TotalAccess

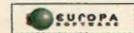


800-395-8425

<http://www.earthlink.net>

TotalAccess is Earthlink's complete software and Internet connection package. It includes Netscape Navigator, award-winning Internet access software, and everything needed to register for complete Internet access in less than five minutes. After the \$25 setup fee, unlimited access is provided for \$19.95 per month. Round-the-clock tech support is provided via an 800 number.

## Europa Software—Web Quick



<http://www.europasoft.com>  
Frustrated by Bookmarks? Web Quick tracks every page you visit and automatically organizes them by site. It lets you create

custom topics—and keeps them all at your fingertips with handy pop-up menus. Web Quick even converts existing Bookmarks. No wonder MacWEEK called it "the first Web utility that is essential!"

## MacSoft—Duke Nukem 3D

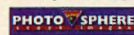


800-229-2714

<http://www.wizworks.com/macos>

This is the game that shattered perceptions of realistic 3D environments, and interactive gameplay, and is the first to have a meaningful story progression, cool cut scenes, and an action hero like no other game has ever seen.

## PhotoSphere Images Ltd.



800-665-1496

<http://www.photosphere.com>

Use royalty-free stock photos from PhotoSphere Images in your sales brochures, annual reports, Web sites, point-of-purchase displays, newsletters, multimedia presentations, print advertisements, and more. PhotoSphere specializes in images of people, plus you'll find thousands of professional stock photos covering the economy, places, nature, and backgrounds. Thirty free images are ready for download on The Disc.

## UMAX Computer—SuperMac S900



888-232-UMAX

<http://www.supermac.com>

The SuperMac S900 system was specifically designed with high-end functionality to meet the needs of creative design and production professionals. We kept all the best things you like—the familiarity and ease of use of the Mac OS and compatibility with all your favorite software. And we wrapped it all up with the raw power of a 604 PCI-based design and delivered it at a price that can't be beat. Many unique features of the new S900 were designed to eliminate performance bottlenecks that have long troubled the market.

## United Computer Exchange—MacAppraiser



800-755-3303

<http://www.uce.com>

MacAppraiser calculates the current market price of any used Macintosh and/or compatible product with any given configuration.

## WAV—The Next Generation Desktop



801-785-2115

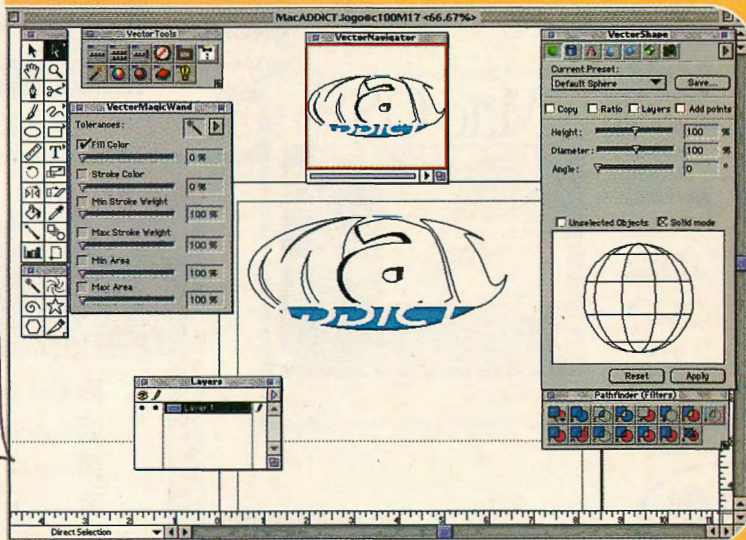
<http://www.dharbor.com>

WAV is the first Net-enabled component word processor...that works the way you do. WAV's clever interface provides seamless and immediate access to other OpenDoc, Netscape, and Java components. Aside from the ability to contain parts, WAV also can be embedded into other OpenDoc parts.

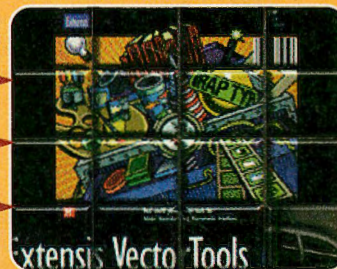
# CONTEST

## Win!Win!Win!Win!Win!Win! Get your very own VectorTools!

To get to the contest, go to The Disc's index, and look for the special hot spot (it isn't hidden very well anymore). When you solve the puzzle, the CD-ROM will give you a code. Enter this code on the Web site for your chance to win Extensis' VectorTools, an amazing productivity product for Adobe Illustrator or Macromedia FreeHand. (See the VectorTools review on page 67.)



## Can you turn this... ...into this?



# HELP

## You Have a Problem?

What! You need help? Well, if your superphat disc is mangled, warped, broken, or otherwise disturbed, you can get a replacement from Imagine Publishing's customer service. We've set up a special Web site where you can order one at

<http://support.imagine-inc.com>. If you can't install anything, or get disk errors, do the same.

If you're having problems with System software, we recommend calling the good folks at 800-SOS-APPL. They'll be more than happy to help you.



# the disc

FEWER BUGS  
MORE  
FEATURES!



## SYSTEM SOFTWARE Mac OS 8

**R**ead all about the newest Mac OS on page 26. If that doesn't leave your mouth watering, check out Apple's Intro to Mac OS 8. These QuickTime movies show you all the fantabulous new features, from new Finder commands to assistants to setting up a home page. We're suckers for the View by Kind on the Desktop. **MacAddict12:This Issue:Mac OS 8 Demos:Apple OS 8 Demos**

### Working Smarter & Faster

Multi-tasking Finder

Quick & Easy  
File Access

File Information  
at your Fingertips

New Desktop  
Appearance

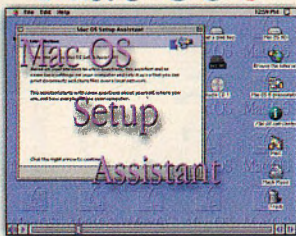
Draw Indicators  
Ability

## Mac OS 8



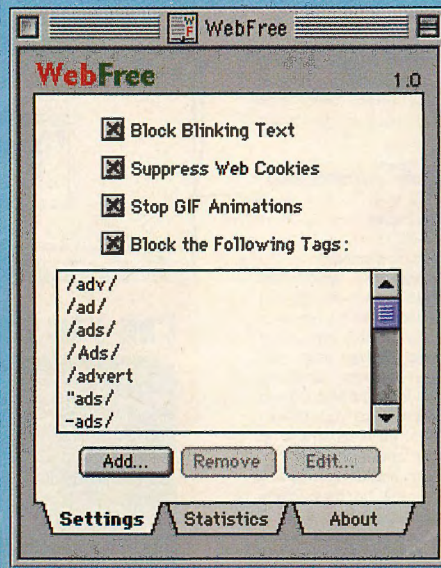
Simple System  
Setup &  
Online  
Information  
Installer  
Mac OS  
Setup Assistant  
Internet Setup  
Assistant  
Online  
Information

## Mac OS 8



return

## WEB UTILITY WebFree



LOOK MA,  
NO ADS!



**W**ebFree allows you to selectively and automatically block Web content based on its HTML tags or names. You can block annoying cookies and animated GIFs; even individually block out banners, images, or links that you don't like.

—WA **MacAddict12:Software:Communication:WebFree**

## GAME DEMO

### Duke Nukem 3D

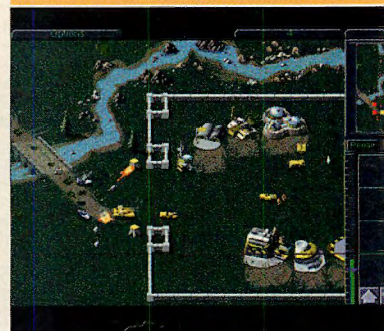


**S**hoot monsters, listen to Duke's pithy commentary, shoot monsters, pick up ammo, shoot monsters, pick up health, shoot monsters, hit switches, shoot monsters, pick up passcards, shoot monsters. Need we say more? How about, type "dnkroz" for god mode, and "dnstuff" to give yourself everything.

**MacAddict12:Software:  
Commercial Demos:Duke  
Nukem 3D Demo**

## WINNERS!

**B**rad Roth and Andrew Canning are the lucky winners of our May contest. The secret code was "dfac," which is short for digital filter audio chip, used in the LC line for 8-bit audio. The tradition at Apple is to get a chip (or something) named after you, so really, the dfac stands for Doug Farrar audio chip. Brad and Andrew are the proud owners of two bright, shiny copies of Westwood Studios' Command & Conquer.



## CONFIG

**T**he Config button on the main screen brings up this handy dialog box. Use it to change the music track, adjust the volume (or mute it!), select your browser for Web links, and see credits for the music tracks.



## UPDATERS

Damage Inc.  
Escape Velocity  
Command & Conquer  
Marathon Infinity



# Are you losing sleep dreaming of a sexy spreadsheet and

# mind-blowing charts !!!

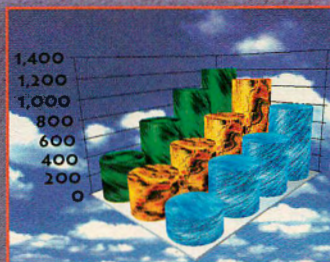
Imagine a spreadsheet with more features than ClarisWorks™,  
but without the bloated feeling of Microsoft Excel™!

## Introducing Adrenaline Numbers & Charts 1.0™

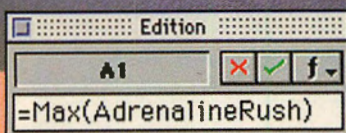
Have you ever imagined being able to transform  
your existing Excel data into amazing, shaded,  
texture-mapped, true 3D charts using any  
3D object you like ?

	1995	1996	1997	1998	1999
<b>SURFBOARD SALES</b>					
Model					
Caffeine Overkill	2.2	8.3	17.1	24.3	36.9
Wave Crusher	5.8	12.7	14.9	22.1	29.7
Tsunami 550 GTI	7.4	14.2	16.8	24.9	34.0
OutOfControl 700/MB	11.1	24.5	61.2	76.7	99.1
Truesman Big Kahuna	2.2	4.1	31.6	50.5	66.3
Northern Impact II	12.9	22.5	27.8	34.9	42.1
HyperActive XV400	4.2	14.0	36.7	44.1	46.2
HyperActive XV7000	6.8	18.7	45.9	51.2	57.8
Terminator One	0.2	7.8	58.2	70.3	85.3
<b>TOTAL:</b>	<b>51.0</b>	<b>129.0</b>	<b>251.4</b>	<b>328.7</b>	<b>402.1</b>

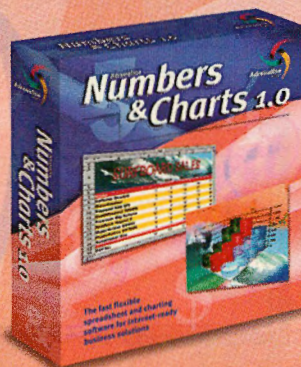
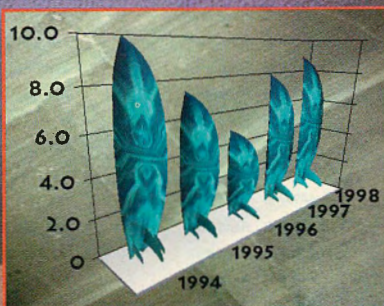
Imagine if you could  
save those charts as  
pictures, 3D objects or QuickTime™  
movies ? You could use those charts in a  
presentation program, a video program  
or put them out on the Internet !



With its support for advanced Apple  
technologies like QuickTime, QuickDraw  
3D™, AppleScript™ and more, Adrenaline  
Numbers & Charts takes the MacOS™  
to the max !



With Adrenaline Numbers  
& Charts 1.0, you might  
not get more sleep, but  
you'll have a lot more fun.



**Ready for  
MacOS 8**

As the first spreadsheet and charting  
package to be released in over two years,  
Adrenaline Numbers & Charts is optimized  
for the technologies of today's MacOS system  
software as well as tomorrow's MacOS 8.

### Adrenaline Numbers & Charts 1.0

#### Features

- PowerPC™ native calculation kernel
- 149 essential spreadsheet functions
- TrueDimensioning™ formatting (pixels, inches, cm, points, picas) for spreadsheets and charts
- Advanced scripting capabilities
- Export spreadsheets as HTML
- Microsoft Excel 5.0 data compatible
- 23 2D/3D chart types to select from
- Simple interface for direct manipulation of objects
- Texture mapping of images and movies
- Import 3D objects (3DMF files)
- Full QuickDraw 3D support
- Innovative ObjectTransporter™ technology for creating custom 3D charts
- Complete OpenDoc support

#### System requirements

- Macintosh with PowerPC processor
- System 7.5.3 or later
- 16 MB of physical RAM
- 5 MB of hard disk space



**Adrenaline Software, Inc.**  
1400, boulevard du Parc technologique  
suite 210  
Québec (Québec)  
G1P 4R7 CANADA  
info@adrenaline.ca  
www.adrenaline.ca

Adrenaline Numbers & Charts is available right now at Cyberian Outpost, the Mac-friendly cool place for computer stuff. You may order via their web site at <http://www.cybout.com/> or at 1-800-856-9800. Adrenaline Numbers & Charts is also available from MacWarehouse in the USA at 1-800-397-8508 or in Canada at 1-800-268-7805. An electronic version of Numbers & Charts is available from C/Net at <http://BuyDirect.com>

**CYBERIAN Outpost**  
1-800-856-9800

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# the disc

## GAME DEMO Fallout



**T**his demo of MacPlay's latest role-playing game lets you explore a postnuclear war wasteland. As Max Stone, you interview denizens, join a gang, and search a junkyard for clues. Be sure to install the included software in your System before running the demo. *MacAddict12:Software:Commercial Demos:Fallout Demo PPC*

## DISK UTILITY DiskTracker

MacAddict CD Catalog (1-11) - All Disks

11 volumes  
11 items

13,177 files

26 archives  
WADESTEP

336.9MB free on "WADESTEP"

Name	Size	Kind	Created Date	Modified Date
MacAddict 01	606.3MB	Hard disk	Thu, Jun 13, 1996	Mon, Jun 17, 1996
MacAddict 02	645.9MB	Hard disk	Tue, Jul 2, 1996	Thu, Jul 25, 1996
MacAddict 03	625.3MB	Hard disk	Wed, May 15, 1996	Mon, Sep 2, 1996
MacAddict 04	623.7MB	Hard disk	Tue, Sep 17, 1996	Thu, Sep 26, 1996
MacAddict 05	630.2MB	Hard disk	Fri, Sep 27, 1996	Thu, Oct 24, 1996
MacAddict 06	630.1MB	Hard disk	Tue, Oct 8, 1996	Tue, Nov 26, 1996
MacAddict 07	632.6MB	Hard disk	Wed, Dec 11, 1996	Fri, Dec 20, 1996
MacAddict 08	647.4MB	Hard disk	Tue, Jan 21, 1997	Fri, Jan 24, 1997
MacAddict 09	650.5MB	Hard disk	Mon, Jan 27, 1997	Thu, Feb 20, 1997
MacAddict 10	655.8MB	Hard disk	Fri, Feb 21, 1997	Mon, Mar 31, 1997
MacAddict 11	648.8MB	Hard disk	Tue, Mar 25, 1997	Thu, Apr 24, 1997

All Disks OK (0 items) selected

**W**ondering how to find all the great stuff on all our discs? Most catalog programs can't handle those pesky CDs from the first six months that were all named "MacAddict." Enter DiskTracker! Scan a CD, rename it, and then search all cataloged volumes by name or any other attribute. —WA *MacAddict12:*

*Software:Disk & File:DiskTracker 1.1.2*

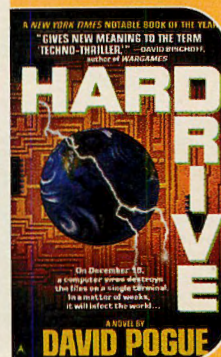
Search Results

2 items found  
0 items selected  
OK selected

Icon	Name	Size	Kind	Created	Modified
Folder icon	Open Transport 1.1.2	11.1MB	folder	12/4/96	12/12/96
Folder icon	Open Transport 1.1.2	16.2MB	folder	12/16/96	12/16/96

## HARD DRIVE

**W**elcome back to *MacAddict's* serialization of David Pogue's Silicon Valley thriller. Part six of *Hard Drive* finds the evil virus making files disappear from a cute little System 6 desktop. Isn't it nice that the only viruses for the Mac nowadays are crossovers from Word for Windows? *MacAddict12:Hard Drive*



## MORE GAMES

3-D Cannon  
Battle for the Planets  
Bob vs. The Aliens  
Crib 3000  
Five Dice  
Marathon EVIL  
Sprint

## FAKE MAC OS 8

Aaron  
DeskPicture  
Hidden Finder Features  
Kaleidoscope  
Smart Scroll



# You Gotta Love a Guy Who Thinks the Bureau of Alcohol, Tobacco & Firearms is a Convenience Store!

"Absolutely the best first-person game of the year, bar none...Duke Nukem is the undisputed king."

*Boot Magazine*

"Gives players something they can't get elsewhere: A hero with an attitude."

*Wall Street Journal*

"★★★★★" (5 out of 5 stars)

*PC Games*

"★★★★★" (5 out of 5 stars)

*Computer Life*

"Duke is king."

*Computer Gaming World*

"A perfect 10!"

*Computer Player*

#1 Selling  
PC Game of 1996

Available  
Now  
for Macintosh

ATOMIC  
EDITION

# DUKE NUKEM<sup>TM</sup>

## 3D

Available at

ELECTRONICS  
**Fry's**

for Macintosh<sup>®</sup>

Created by

3  
REALMS

Mac version by

Lion  
ENTERTAINMENT, INC.

# MacSoft<sup>®</sup>

2300 Berkshire Lane No., Plymouth, MN 55441 • 612-509-7600  
Call for a free catalog or visit our website at [www.wizworks.com](http://www.wizworks.com)

System Requirements: Any Macintosh with a 68040 or higher microprocessor, 8MB RAM, color monitor and CD-ROM drive. Also accelerated for Power Macintosh.



## the web site

JULY

MONDAY



TUESDAY

**1** It's **Canada Day!** In honor of our northern neighbors, who always seem to get their copies of *MacAddict* before we do, we'll preview our amazing anniversary issue.

WEDNESDAY

**2** Imponderables pondered, mysteries demystified, **tea, and sympathy**—it's our lovable Q&A Wednesday extravaganza.

THURSDAY

**3** Traveling back to yesterday, we'll unearth a classic Shareware Pick of the Week. Oldies can be goodies, too, y'know.



FRIDAY

**4** Your online editor may be an **expatriate Brit**, but he can spangle stars with the best of 'em. Check out our Independence Day makeover!

**7** Resident performance maniac David Reynolds shows you how to set up a home Ethernet network on **the Practical Mac site** at <http://www.practicalmac.com>.

**8** Happy birthday to *MacAddict* Art Director Ken Bousquet! We'll feature some of Ken's original work in a very special Art Gallery.



**9** It's summer, darn it, and we don't feel like working, either. In a special Q&A Wednesday, we'll **post some stumpers** and let you do the work of answering 'em.

**10** For people who **agonize** for hours over where to go for lunch, how can we so swiftly settle on a Shareware Pick of the Week?

**11** *MacAddict's* Kathy Tafel is celebrating a birthday this coming Sunday. We'll deliver our greetings in a special Web Exclusive-type thing.



**14** As Mac OS 8 week begins, we'll launch a special section on our Web site to bring you all the latest on the **Magnificent 8**.

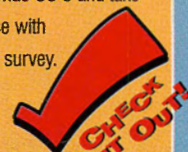
**15** Not to be outdone, David Reynolds goes over Mac OS 8 with a fine-toothed comb at the Practical Mac.



**16** Exhausted by the frenzied **Tempo** of the Mac OS 8 rollout? Kick back with a special, guaranteed 100 percent Mac OS 8-free Q&A Wednesday.

**17** Want some nifty toys to spice up your Mac OS 8-equipped Mac? We'll use our **Shareware Pick of the Week** to finger some add-ons.

**18** To wrap up the festivities, we'll pick the brains of the *MacAddict* staffers for their first impressions of Mac OS 8 and take your pulse with an online survey.



**21** After a couple-week hiatus, our **Site of the Week** award comes bursting back onto the scene with the biggest, baddest page in town.

**22** Turn to our electronic pages for the complete rundown on our **scintillating, titillating, illuminating** anniversary issue. It'll blow your mind, chum!

**23** Still got questions? Well, we've still got answers, though **there's no guarantee** they'll match. See how close we come on our traditional Q&A Wednesday.

**24** Sometimes the best things in life are free. We'll point you to a big ol' bargain with our Freeware Pick of the Week.



**28** How about a site for sore eyes? We'll do our best to advance the spread of **chronic eye strain** with the gaudiest, loudest, most overdecorated Site of the Week we can find.

**29** Thumbscrews and cattle prods and lashes that sting—these are **a few of our favorite things** for coaxing Web Exclusives out of your favorite *MacAddict* staffers.

**30** Three months of this can take their toll. We **freshen up** our regular Q&A Wednesday with a nifty inversion—this time, we'll make you answer our vexing questions.

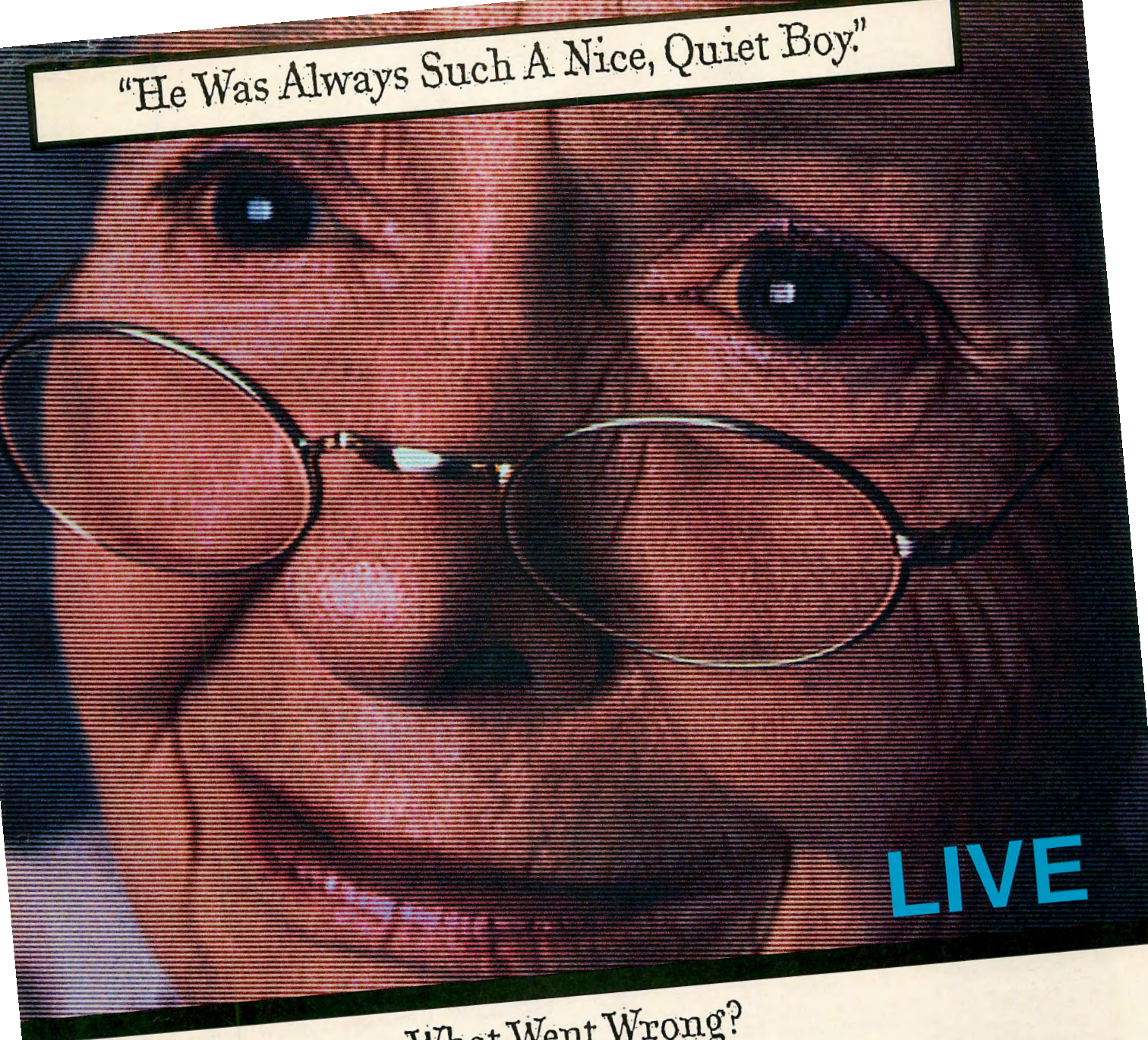
**31** Celebrate the **tenacity** of the Macintosh with our festive Shareware Pick of the Week.

**25** You just keep sending us more, and what can we do but keep right on posting it? That's right, it's time for another Reader Art Gallery update.

**VISIT**  
Associate Editor  
David Reynolds' new Web site,  
**the Practical Mac, at**  
<http://www.practicalmac.com>  
for troubleshooting help, handy  
how-tos, and all the Mac info that you  
need but can't quite remember.

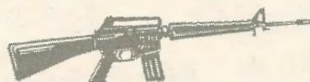


"He Was Always Such A Nice, Quiet Boy."



LIVE

What Went Wrong?



**POSTAL**

Find out at [www.gopostal.com](http://www.gopostal.com)

Or call 1-888-797-5867 for a fully loaded demo disk (use the code words "firing squad"). And yeah, there is a charge - but don't go postal - it's only 5 bucks.







## get info

WWDC, chip fights, Newton news, loony lab, win Mac OS 8, *MacAddict* Index, and more!

## Rhapsody to Run on Intel Hardware

*Developers cautiously optimistic about Apple news*

### Heard on the WWDC Floor

"The Avie-an death match—is this where they blow up marketing people?" (Avie Tevanian is Apple's senior vice president of software engineering)

—anonymous Apple employees discussing a video game

"Are those JPEG artifacts, or are those Gil's shoes?" —anonymous Apple employee on the keynote Webcast

"So our novice users don't have to master the complexities of double-clicking"

—Mac OS 8 Product Manager Peter Lowe, demonstrating simplified features of the new Finder

"Also good price/performance"

—Ellen Hancock, Apple executive vice president, approving the selection of a large pizza

"Ship it!"

—anonymous WWDC attendee on seeing the Rhapsody demo

"We'll show you a shootout between these [new PowerPC] systems and the Pentium II. We'll even get the right answers."

—Jon Rubenstein, Apple senior vice president for hardware engineering

Each May, Apple's faithful developers make the trek to San Jose, California, to attend the Worldwide Developer Conference (WWDC). They meet to schmooze, learn neat tricks, get new tools, and compare T-shirts. This year, everybody was anticipating the latest developments in Rhapsody, Apple's next-generation operating system (see Apr/97, p38). Apple relayed shocking news: For the first time, the company will sell an operating system that runs on Intel hardware.

How could the company commit such blasphemy? By blending NeXT Software technology with its own, Apple will be able to provide its new software in four different ways:

**Rhapsody for PowerPC** will run only on Macintoshes (and compatibles) shipping since January 1997 (most 604- and 603e-based systems). The *yellow box* is the new heart of the operating system, the *blue box* supports current Mac OS programs, and there will be a super-speedy Java virtual machine. On top of all that is the "advanced Macintosh look and feel"—the Mac OS 8 interface plus some NeXToid widgets.

**Yellow Box for Mac OS** will allow some Macs made before 1997 to run Rhapsody apps. Allegro, the next version of the Mac OS after 8, will be required for this support, but it's not clear yet which Macs will be able to run Allegro.

**Mactel**—Rhapsody for Intel—will be an alternate operating system for

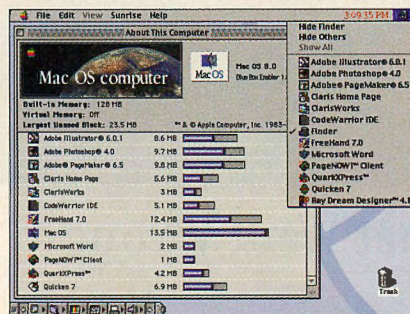
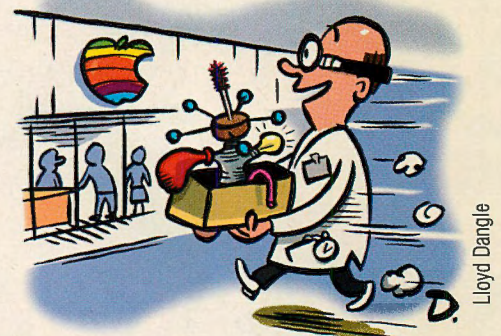
Intel hardware (such as OS/2 and Linux). You won't be able to run Mac OS programs on it, but Mactel will have the advanced Macintosh look and feel instead of NeXT's user interface.

**Winsody**—the yellow box for Windows—allows both Windows 95 and Windows NT to run software written for the yellow box. It will have the Windows look and feel.

**Another first:** Apple will directly compete with Microsoft's operating system on Intel hardware. Microsoft will not take this lying down—expect plenty of FUD (fear, uncertainty, doubt) to be disseminated from the Redmond mothership. Because you'll be able to get everything but Mac OS compatibility

on Intel hardware, Apple will need to design incredible hardware to keep you on the PowerPC platform. Fortunately, the PowerPC will be outperforming the Pentium for a while (see "Pentium Versus PowerPC," p21). Going to Intel, however, will give Apple developers a huge audience: They can develop on the yellow box, and their applications

will run on Rhapsody for PowerPC and Intel, Windows 95 and NT, and future versions of the Mac OS. Now all Apple has to do is execute. —DR



**OVER THE COURSE OF WWDC, developers tested more than 400 applications in Rhapsody's blue box, and only four crashed.**



**ONE OF THE FIRST RHAPSODY APPS,** this QuickDraw 3D viewer was written in Java. Although the user interface is preliminary, notice the proportional scroll thumbs and the Mac OS 8 windows.



# Pentium Versus PowerPC

*Match of the millennium pits beauty against brawn*

**Y**ou used to be able to match up Intel's 286, 386, and 486 chips against Motorola's 68020, 68030, and 68040—the digits matched so well. Differences between the Pentium and PowerPC are not so readily apparent. Motorola still uses numbers for the PowerPC chip, but Intel has spent too much money branding the Pentium name to call its chips anything else. We set up the MAWF (*MacAddict Wrestling Federation*) Super Slugfest to see which chip packs the most punch. To be perfectly fair, we set up the rounds matching chips in the same price range and intended market.

## Cruiserweight

The Pentium and PowerPC 601 weigh in at the low end. Although nobody sells a Mac compatible with a 601 in it anymore, low-grade Pentiums are available for the less discerning. Pound for pound, an old 601 will take out the Pentium.

## Tag-Team Champion

The 603e wins for taking on both the Pentium with MMX and the mobile Pentium with MMX. Desktop Macs sport 603e chips at speeds of up to 300MHz; PowerBooks, at up to 240MHz. Pentiums with MMX max out at 200MHz, while the laptops poke along at 166MHz. Da winner: 603e.

## MAWF Television Champion

Any PC with MMX gets a fuchsia medal. According to Intel commercials, you *need* MMX technology to use the Internet and view multimedia.



No contest—Motorola needs to spend some bucks on advertising the PowerPC.

## King of the Ring

The next-generation Pentium, the P6—the original Pentium was a P5—isn't named the Sexium, although that would have made a great ring name. Instead, the Pentium's managers

capitalized on the propaganda generated for its predecessor and dubbed it the Pentium Pro. This heavyweight challenges the 604e in the high-end workstation arena. Fortunately, the Pentium Pro tops out at 200MHz, leaving the crown for the superspeedy 250MHz 604e.

## Royal Rumble

The Pentium II uses the Pentium Pro design, slows it down to make it cheaper, but adds MMX. Right now, the competition in the same price range is still the 603e. The Pentium II will compete at up to 300MHz, just like the 603e. Fortunately, Motorola has a third-generation (G3) chip code-named Arthur waiting in the wings. Currently, though, this match is a draw.

Toward the end of '97, look for MAWF Super Slugfest II, in which Motorola's G3 chip code-named Mach 5 takes on the next-gen Pentium Pro, code-named Deschutes. Although the pretty-boy Deschutes reportedly will run on a 100MHz bus, we're placing our bets on the speed racer's new process and cache designs. Unlike the organizations pitting the pitiful Pentium II against the Mach 5, the MAWF would never fix a fight. —KT

## MAWF Scorecard

Event	Champ
<b>Cruiserweight</b> Pentium vs. 601	601
<b>Tag-Team Champion</b> Pentium and mobile Pentium with MMX vs. 603e	603e
<b>Television Champion</b> Intel vs. Motorola	Intel
<b>King of the Ring</b> Pentium Pro vs. 604e	604e
<b>Royal Rumble</b> Pentium II vs. 603e: too close to call	?
<b>SlugFest II</b> Deschutes vs. Mach5: TBA	?

\*We picked our champs based on SPECint95, SPECfp95, and Mathematica benchmarks.

## Apple Spins Off Newton

**S**teve Jobs may have more influence at the new Apple than anyone could have guessed. During his "fireside chat" at the Apple Worldwide Developer Conference, he commented that it would be difficult for any company to be successful developing two operating systems (Mac OS and Rhapsody), much less three (Newton). Right or wrong, six days later, the Newton group was its own company.

The yet-to-be-named company will take over development and manufacturing of Newton technology. The products will be sold by both the new company and licensees. As a licensee, Apple will continue to market and sell the eMate, while the new company takes over the MessagePad 2000.

This move reinforces that Apple really is trying to focus on its core competencies: education, publishing, small business, and home. The Newton was succeeding in places Apple didn't understand: medical facilities, sales forces, and field service work. By letting go of the Newton, Apple gets to keep that which it understands, the eMate, and allows the new company to grow into different markets. —KT





# get info

## Puttin' on the Pounds



Ever wonder why some software packages are so much more expensive than others? MacAddict Lab has found the answer. We were measuring the displacement capabilities of office supplies the

other morning (science is our poetry, our beloved toil) and got to thinking, Is there a correlation between the weight of a software package and its cost? Are you paying by the pound? Judge for yourself. —Matthew King

### How They Cheat

Companies use different methods to beef up their poundage:

**CorelDRAW**—600 pages of clip art.

**FreeHand**—Includes voluminous tomes on topics such as "How to Use This Manual."

**Canvas**—Software included on floppies.

**QuarkXPress**—One word: QuarkXPress.

**Mathematica**—Hard-back binding surrounds 1,900 pages of manual, but it's as "easy to use as a calculator."

**Openstep**—The instructions are written in several different languages. Las instrucciones estan escritas en varios idiomas. Die Gebrauchswweisung ist in mehreren Sprachen.



## Win a Copy of Mac OS 8!

We're giving away eight copies of Mac OS 8! For your chance to win, see how many words you can create out of the phrase: **MACINTOSH RULES!** Enter on our Web site, or send your entry to OS Great, c/o MacAddict Contests, 150 North Hill Drive, Suite 40, Brisbane, CA 94005. On your envelope, write the number of words in your entry and circle it. Please alphabetize your words. Contest ends August 15, 1997. The eight entrants with the most words will receive copies of Apple's latest system (ties will be broken by a random drawing). English only, please—words must be found in Webster's *New World Dictionary*.

## Top 10 Key Combos

Your Mac's keyboard isn't meant only for writing crank letters to Wilfred Brimley. You can, in fact, do useful things to your Mac with your keyboard that don't involve a word processor. For lots more key combinations, visit the Practical Mac at <http://www.practicalmac.com>. —DR

**1 C**—If held down just after pushing the power key, the C key forces Power Macs and members of the Macintosh 630 family to start up from the CD-ROM drive instead of from the hard drive.

**2 Command-Control-power**—Forces a Power Macintosh to reboot

**3 Command-Control-Option-power**—Makes your Mac quit all applications and then shut down

**4 Command-Option**—Rebuilds the desktop if held down while your Mac starts up

**5 Command-Option-Escape**—Forces the frontmost application to quit. You should restart after doing this.

**6 Command-Option-Shift-Delete**—Forces your Mac to boot from an external drive or the CD-ROM drive

**7 Command-Y**—Ejects the floppy disk (or other removable media) without leaving a ghosted image

**8 Command-Shift-4**—Turns your cursor into a crosshair, which you can use to select an area to capture as a screenshot (System 7.6)

**9 Shift**—Disables all Extensions if held down during startup

**10 Space**—Makes the Extensions Manager (or Casady & Greene's Conflict Catcher) appear during startup so you can change your Extension set while booting



## The MacAddict Index

Estimated units of Bandai's Macintosh-based Pippin sold to Japanese customers as of May 1997: 30,000

Approximate Pippin sales in yen (at ¥64,800 each): ¥1,900,000,000

Percentage of MacAddict staff who own a Pippin: 0

Estimated units of Bandai's Tamagotchi virtual pet sold to Japanese customers as of May 1997: 4,500,000

Approximate Tamagotchi sales in yen (at ¥1,980 each): ¥9,900,000,000

Percentage of MacAddict staff who own a Tamagotchi: 20

Number of Apple engineers assigned to System 7 development as of mid-1995: 6

Approximate number of Apple engineers assigned to Mac OS development as of mid-1997: 100

Percentage of Mac OS engineers who have worked in tech support: 25

Purity, in percent, of the Java that will be supported in Apple operating systems: 100

Percentage of Java that is "hype," according to Director of Rhapsody Engineering Bertrand Serlet: 90

Number of "Ways to Save Apple" listed in issue 5.06 of *Wired* magazine: 101

Number of "Ways to Save Apple" contributed by MacAddict staff: 6

Number of "Ways to Save Apple" that we believe are absolutely guaranteed to return the company to its former glory: 6

Number of hardware models the Rhapsody developer release would run on prior to WWDC: 2

Number of hardware models the Rhapsody developer release would run on after WWDC: 4

Number of comments one could make about Oracle CEO Larry Ellison, according to friend Steve Jobs: "A lot"

Number of these comments that Jobs says he can make because he has never dated Ellison: Not many

Sources may be found on the MacAddict Web site. —MS

# PC Applications Driving You Bananas?



## Put Orange<sup>®</sup>PC in Your Apple

Sometimes, to keep from going bananas, you must run a PC application on your Mac. The OrangePC<sup>®</sup> is an expansion card which allows you to run both Mac and PC programs simultaneously.

It magically transforms

your Apple into a dual computer platform which can support Windows<sup>®</sup>NT, NeXT<sup>®</sup> OPENSTEP<sup>®</sup>, Windows<sup>®</sup>95, Windows<sup>®</sup> 3.1 or DOS. It makes thousands of PC applications compatible with your Macintosh system.

If you have a PCI based Performa (7" expansion slot), a full-sized PCI Power Macintosh compatible (12" slot) or a NuBus based Quadra, there's an OrangePC solution that's right for you. Whether you are budget sensitive, or performance hungry, you may select

a processor from the low-cost Intel<sup>®</sup>486 up to our exclusive Intel MMX Pentium<sup>®</sup> 200MHz.

And, the OrangePC is affordable, with prices starting at \$499.



*The technical stuff:* OrangePC models come in 7" or 12" PCI, and NuBus card types; up to 5x86 133MHz or up to MMX Pentium 200MHz; RAM from 8 to 256MB on board; up to 256K pipeline burst L2 cache; parallel port (for those delightful PC dangles); 2 high speed serial ports; 16 bit Sound Blaster<sup>®</sup> compatible In/Out; game port; one or two MB of video DRAM.

Call us today, and put an OrangePC in your Apple.



"17 Years of Innovation and Excellence"  
1400 N. Lakeview Ave., Anaheim, CA 92807  
(714) 779-2772 [www.orangemicro.com](http://www.orangemicro.com)

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# cravings

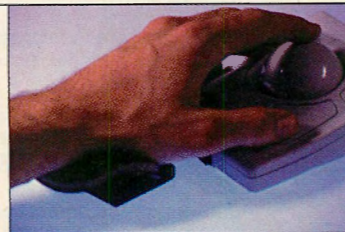
Six tantalizing and tasty treats to test your temperance.

## Comfort Point

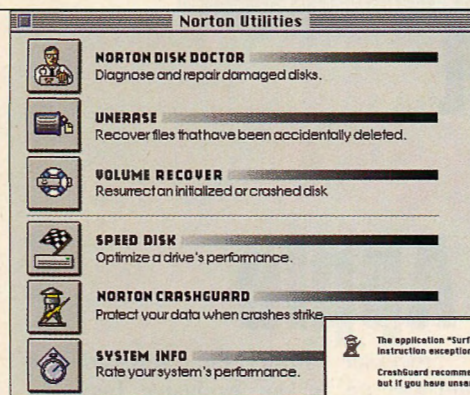
Comfort Point



It's a rough life for those of us who have eschewed all material comforts in the pursuit of the Mac. Not that you're a masochist per se (despite what your ex told the *National Enquirer*), but let's just say that comfort for comfort's sake seems wasteful, especially when there's so very much to do. Ease your mind, O tortured one, and ease the load on your mousing hand with the Comfort Point palm and wrist rest. This little device looks a bit odd, but when you attach it to your mouse via the Velcro hook-and-loop fastener strap, it becomes a soft, padded leather couch for your hand. Sink into that soft covering, and you'll positively melt. Before you reject the \$24.95 wrist rest out of hand because it simply isn't practical, consider this: The Comfort Point was designed to protect you from carpal tunnel syndrome from mousing too much. The Comfort Point also comes with a Lexan TurboPad (by the good folks at Curtis), which provides a smooth surface on which the Comfort Point slides. For some practical luxury, contact Comfort Point at 800-429-3746, or go to <http://www.comfortpoint.com>.



**CREATURE COMFORT FOR YOUR MOUSE.**



## Norton Utilities for Macintosh 3.5

Symantec

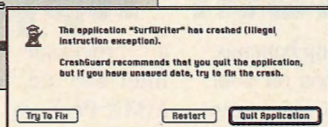
considerable power base and wrest control of the world from TV weatherman Willard Scott? For only \$99, Symantec's Norton Utilities for Macintosh may provide the answer. The new version of Norton Utilities includes Norton

Troubleshooting ability is power. Sun Tzu knew it. The Romans knew it. The Carthaginians knew it. And now you know it. The question is, how do you add godlike troubleshooting to your already

**PURE POWER TO MAKE YOUR MAC PURR.**

CrashGuard, which lets you escape gracefully from crashes, even allowing you to save data. CrashGuard also logs crashes so you can see which applications are causing the ruckus. Symantec improved the speed of Speed Disk, offering several options for disk optimizations. Norton Utilities comes on a bootable CD-ROM, which is the final piece in the troubleshooting puzzle. Just slip in the CD, reboot, and you're ready to rock. Claim your share of the

new world order by contacting Symantec at 800-441-7234 or pointing your Web browser to <http://www.symantec.com>. Teach Willard Scott the error of his ways.



## PowerBook PCI Expansion System

Magma

Remember way back, during the heady days of the early '90s, when Apple created the Duo? Now *there* was a useful tool—it let you have your desktop Mac and carry it around, too. Although the Duo days may be long gone, you can bring back the basic idea with Magma's PowerBook PCI Expansion System. For a mere \$975, you can have seven full-length PCI slots available via your PowerBook 3400's PCI expansion slot. The PCI Expansion System also includes

### A PLETHORA OF POWERBOOK PCI SLOTS.

its own power supply and space for three 5¼- and two 3½-inch-format peripherals with front-panel access. Just imagine this puppy loaded with a RAID array, fast SCSI card, accelerated video card, 166MHz Pentium PC-compatibility card, and Zip and Jaz drives upfront, just for good measure. Who says your 3400 can't compete with the best desktop system? No one, that's who, after you show off your muscle-bound 'Book. If you want the best home base for your laptop, call the folks at Magma at 800-285-8990, or go to <http://www.magma.com>.





# PowerKey Pro Model 600

## Sophisticated Circuits

**F**ranklin, Faraday, Tesla, Edison—the top of that very long enemies list that you keep secreted under your middle desk drawer reads like a “who’s who” of electrical scientists. Ever since you took over the Webmaster duties for the archive of lacrosse history, your life has been trying. When the power goes out and your server goes down, hell hath no fury like a Web-surfing lacrosse fanatic scorned. Protect your health with the PowerKey Pro Model 600 from Sophisticated Circuits. For \$200, you get so much

### THE ULTIMATE POWER STRIP FOR THE PEOPLE.

in any order when you press the power-on key on your keyboard. Those outlets will turn off when you choose Shut Down from the Special menu. You also can hook your PowerKey Pro to your telephone line and have your Mac turn on or off with just a telephone call—perfect for restarting

that server when it goes down. In addition, the PowerKey Pro 600 can run a variety of AppleScripts, depending on the keys you press when you call from a remote location. Call Sophisticated Circuits at 800-827-4669, or go to <http://www.sophisticated.com> for more info.

# PaperPort Strobe

Visioneer

**A** true warrior in the battle for the paperless office, sometimes you become discouraged. Sure, you preach “Convenience breeds apathy” to your office co-workers, but sometimes it’s so difficult to scan everything into your Mac, especially when you happen across the occasional color chart that can’t be recycled. And it takes so long to scan each memo, credit card receipt, and business card, especially with that aging flatbed scanner. What you could really use (aside from a relaxing weekend at the World Recycling Expo and Tofu Shoppe) is a fast, small color scanner. Visioneer has heard your plea, fellow warrior, and wants to help. With the PaperPort Strobe, you can scan black-and-white or color documents into your Mac quickly and painlessly. With the bundled Xerox Textbridge, PictureWorks PhotoEnhancer, and Connectix QuickCards software packages, you can do optical character recognition, image editing, and scanning of business cards. The

PaperPort Strobe has a small footprint (easing use of desktop resources) and, best of all, was not tested on animals (they don’t scan well, anyhow, what with all that fur). To strike a blow for arbor rights, call Visioneer at 510-608-0300, or bring up <http://www.visioneer.com> on your Web browser.

**SPEEDY, EASY COLOR SCANNING FOR YOUR DESKTOP.**

# ObjectDancer 1.1

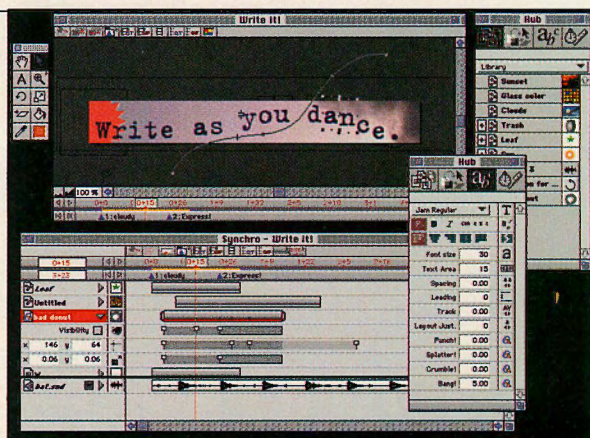
PaceWorks

**S**o there was General Ulysses S. Grant about to sip his morning coffee when he heard the first cannon fire at Shiloh. Union forces were pushed back to the Tennessee River later that day, as the battle didn’t go well for them. Oh, how things would have been different if General Grant only had a few PowerBooks and ObjectDancer 1.1. With this application, Grant could

### MAKE YOUR PIXELS DO MORE THAN POLKA.

have left his PowerBooks running ObjectDancer animations on the battlefield

and retreated a few leagues. The advancing Confederate troops would have been so dazzled that the Union forces would have had little trouble defeating them. ObjectDancer allows precision animation involving text, graphics, audio, and video, and it supports alpha-channel rendering, anti-aliasing, and speedy rendering. It also includes interlaced output and field rendering, which optimizes animations for video broadcast. All this comes at the price of \$299, which isn’t so much, even by 1862 standards. If you want to create your own irresistibly dazzling applications, call PaceWorks at 415-261-6180, or look up <http://www.paceworks.com>. —David Reynolds



cravings





# A Visual Tour of

## What's Especially Cool

**M**ac OS 8 includes a ton of new features, but here are five standouts:

- **THREADED FINDER**—Finally, you can copy several files at once, empty the Trash, and still continue to work.
- **POWERPC-NATIVE FINDER AND PARTS OF THE SYSTEM**—You'll notice a speed jump if you're using Mac OS 8 on PowerPC hardware, especially when scrolling through a long document.
- **SPRING-OPEN FOLDERS**—Just drag a file over a folder, and the folder springs open. You can go as deep as you like into your folder structure without double-clicking a single folder, and all of the intermediate folders snap closed when you stop dragging.
- **PLATINUM APPEARANCE**—Grayscale appearance, beveled windows, and new windows give your Mac a makeover.
- **EASIER INSTALLATION AND SETUP**—With the simplified installer and the new Mac OS Setup Assistant and Internet Setup Assistant, getting up and running on a new Mac System has never been easier.

**A**pple *will* ship Mac OS 8 this summer. It will, it will. It simply *has* to because we all want it so badly.

The new OS offering from everyone's favorite fruit company has insides, but probably the first thing you'll notice when you see Mac OS 8 is that it looks and acts differently from any other Mac OS: The whole system has a grayscale appearance (what Apple terms its *platinum appearance*), with windows that have the Copland look, complete with beveled title bars, new window types, and new controls; the icons stand out in 3D, especially the folders; the System Folder has a ton of new "blessed" folders; and even the cursor and the Trash have changed.

It's time to grab your field glasses, intrepid adventurer, and accompany *MacAddict* on a visual tour of Mac OS 8. You'll have the opportunity to see the beautiful Appearance Manager Extension, several varieties of contextual menus never before seen in these parts, and if you're lucky and stealthy, the rare spinning arrows or even a read-only window icon. Heady stuff, we know, but with this field guide in your hands, you'll be an OS 8 expert before the System even ships.





# Mac OS

## Previewing Mac OS 8

If you just can't wait to try out Mac OS 8, install the preview package that's on The Disc. Although it won't give you Mac OS 8; it will give you some of the features that Mac OS 8 will deliver:

- Live scrolling via Smart Scroll 2.03
- Desktop pictures via DeskPicture 4.5
- New Finder commands via Hidden Finder Features
- Platinum appearance and controls via Aaron 1.6.1.

Also, if you own Connectix Copy Doubler and Now Utilities, you can get some of the benefits of the threaded Finder, including multiple copies, tabbed windows, and an expanded Copy Status box.



**FIND A DEMO  
of Mac OS 8  
on The Disc.**

By David Reynolds



# The Big Picture

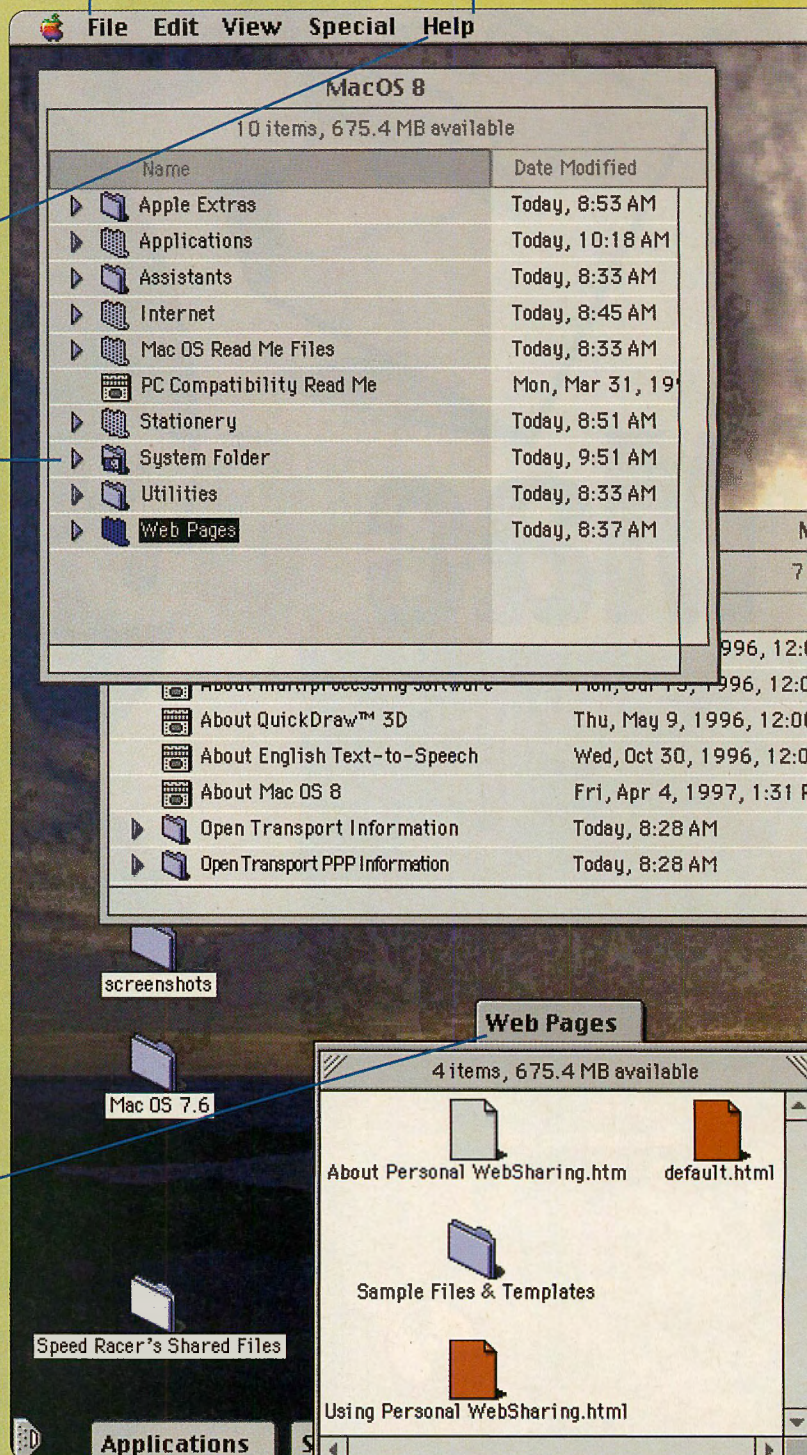
Here's your chance to see the whole new environment for your Macintosh applications. As you can see, there's plenty of new stuff to play with, and that's only on the surface.

There's something new under each and every menu. Pages 30 and 31.

Label is out; Help is in. Page 31.

Wait until you see what's new in here. Page 31.

What? Tabbed windows without Now Utilities? Page 33.

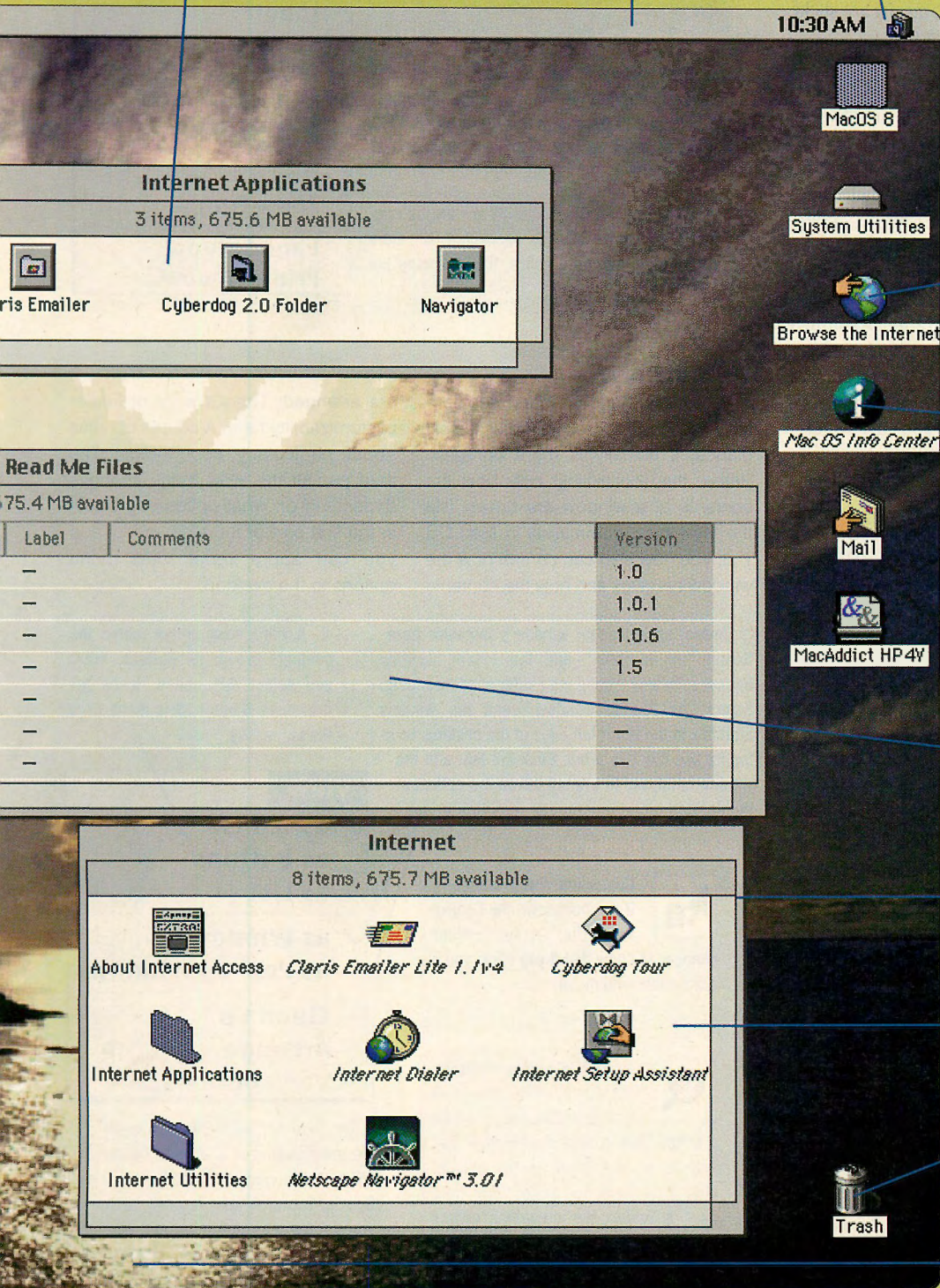




Nope, it's not the Launcher. It's much easier to set up. Page 33.

Something missing? Look to the left (next to the Special menu). Page 31.

The Finder icon finally has a new look. Page 31.



The Internet on the desktop? There's a novel idea. Page 37.

Everything you ever wanted to know about Mac OS 8 (but were afraid to ask). Page 37.

Easier to read than a sheet of notebook paper. Page 33.

More places to grab your window. Remember: Wider borders are better. Page 33.

At least some windows haven't changed. Page 33.

Nice can, man! Page 32.

It's almost like a trip to the ocean—minus the sea gulls. Page 32.



# New Menus

Perhaps the most difficult thing to get used to in Mac OS 8 is the new menus. The Finder menus changed more than in any previous single incarnation of the operating system. The File menu includes two great key-command equivalents, and the Label menu moved here. These additions make the Finder cleaner and easier to use. Also, menus are sticky, as in—gasp!—Windows 95.

## Edit Menu

The Edit menu is relatively unchanged. The Show Clipboard command now is grouped with the other Clipboard commands (where it belongs). The Edit menu now includes a Preferences... command, which calls up the Finder Preferences dialog box. Finder Preferences has some options from the previous Views control panel, the previous Labels control panel, and controls for spring-open folders. It also includes a checkbox to allow you to switch between the standard Finder menus and the Simple Finder.

Edit	
Undo	⌘Z
Cut	⌘X
Copy	⌘C
Paste	⌘V
Clear	
Select All	⌘A
Show Clipboard	
Preferences...	

1. The Show Clipboard menu item moved above the dividing line, which makes sense. All commands that deal with the Clipboard now are in the same cluster.

2. A Preferences... command (which accesses the new Finder Preferences dialog box) was added to the end of the Edit menu.

## File Menu

The File menu is longer in Mac OS 8. A couple of additions are really handy, and one previously misplaced menu found its way home. If you want to do anything with a file, check here first.

1. A new Move To Trash menu item joined the File menu with a Command-Delete key equivalent instead.

2. The Label menu moved from the main menu to become part of the File menu, which is where it belonged in the first place. After all, the File menu is where we go to do things to files, isn't it?

3. Show Original (Command-R) reveals the original to which an alias is connected. No more doing a Get Info on an alias, then pressing the Show Original button.

File	
New Folder	⌘N
Open	⌘O
Print	⌘P
Move To Trash	⌘X
Close Window	⌘W
Get Info	⌘I
Label	▶
Sharing...	
Duplicate	⌘D
Make Alias	⌘M
Put Away	⌘Y
Find...	⌘F
Show Original	⌘R
Page Setup...	
Print Window...	

## View Menu

The View menu changed substantially. Although it looks simpler at first glance, it actually is more complex. Rather than controlling only how the contents of a window are drawn (via the View by... commands in Mac OS 7.x), you now also can control how the window behaves and how the contents

are arranged. There's a lot of Finder customizability here. A couple of notes about particularly cool things: The third part of the View menu changes depending on what option you select in the first part of the View menu; and you can apply some View menu options to the desktop.

1 Control an individual window's behavior here. Select "as Window," and the Finder window behaves the way a good old Finder window should. Select "as Pop-up Window," and the window attaches to the lower left edge of the desktop, turning its title bar into a tab. Click the tab, and the window collapses to a small tab on the bottom of the desktop.

2. A third view option joined the contents group: as Buttons. When you select this option, icons are drawn as single-click buttons (à la the Launcher).

View	
✓ as Icons	
as Buttons	
as List	
✓ as Window	
as Pop-up Window	
Clean Up	
Arrange	▶
View Options...	

3. The third section of the View menu controls the arrangement of a window's contents. The Clean Up command moved here from the Special menu. A new Arrange submenu lets you arrange a window's contents by name, the date modified, and so on. Finally, the View Options... command calls up a dialog box that allows you to choose from several arrangement options (including icon size and whether a window's grid is on or off).

## Cursor Changes

Aside from the typical arrow, watch, and I-beam cursors that you're accustomed to seeing in the Finder, Mac OS 8 added four new cursors. Three are variations on the arrow cursor, and the fourth is a new species entirely.



**Copy cursor**—If you hold down the Option key and drag an item, the arrow cursor adds a plus. This indicates that the Finder will copy the dragged item when you let go.



**Alias cursor**—If you hold down the Command and Option keys while dragging an item to another folder, the cursor changes to show you that you'll be creating an alias of the item in the folder where you drop the item. If you don't drag that item to a new folder or window, you'll merely make a copy in the existing folder.



**Contextual Menu cursor**—If you hold down the Control key, the arrow cursor changes to show that if you click, you'll get a contextual menu.



**Magnifier cursor**—This is the cursor that pops up if you do a click and a half on a folder. That is, do a double click, but instead of letting up on the second click, hold the button down. When held over a folder, the magnifier cursor opens the folder so you can peer inside. You can go as deep into your folder structure as you like, and when you let go of the mouse button, all the intermediate folders close.



## Special Menu

Although the Special menu always has been the catch-all for items that don't quite fit anywhere else, it was simplified and now is less of a hodge-podge. It's divided into three sections: One deals with the Trash, one deals with disks, and one deals with the ultimate state of your Mac.



1. The Eject command now works the way it should have back when hard drives became standard. Now, when you type Command-E, the selected disk is ejected, and it no longer leaves a grayed-out icon on the desktop. (You could previously do this with Command-Y.) If you want that grayed-out icon, just hold down the Option key, and the Eject command turns into an Eject and Leave Behind command.

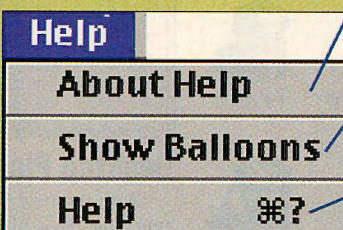
2. The Sleep command now is in the same section as Restart and Shut Down, which makes sense, considering that they all deal with the same overall concept.

## Help Menu

The Help menu may seem new, but it's not. If you look to the right, you'll notice that the balloon help question mark menu is no longer there. It was changed to the word Help and tacked onto the menu bar just after the Special menu. Like the balloon help menu icon, the Help menu is not confined to the Finder—it appears Systemwide. The change from icon to word and the change in location ensure that the Mac's help facilities will be used more frequently.

The Help menu is context sensitive: It changes depending on what application is active when you select it.

1. Instead of About AppleGuide, you get About Help, which calls up AppleGuide and lets you know what you can expect from the Help menu.



2. Balloon help is still here. In Mac OS 8, it can turn itself on under some circumstances.

3. Instead of Macintosh Guide and Shortcuts commands, you have the Help command. This opens up AppleGuide to the main help section.

# System Folder

The Mac OS 8 System Folder added a ton of new "blessed" folders. These folders appear spontaneously (they are generated by the System), and they have their own custom icons. Blessed folders

were created with the idea of making sense out of the Extensions Folder, which has become the great dumping ground for files that have no other place to belong. A side benefit is that the System

Folder now knows what to do with things such as Control Strip Modules and Text Encodings when you drop them on the System Folder. Here's a sampling of what you'll find.

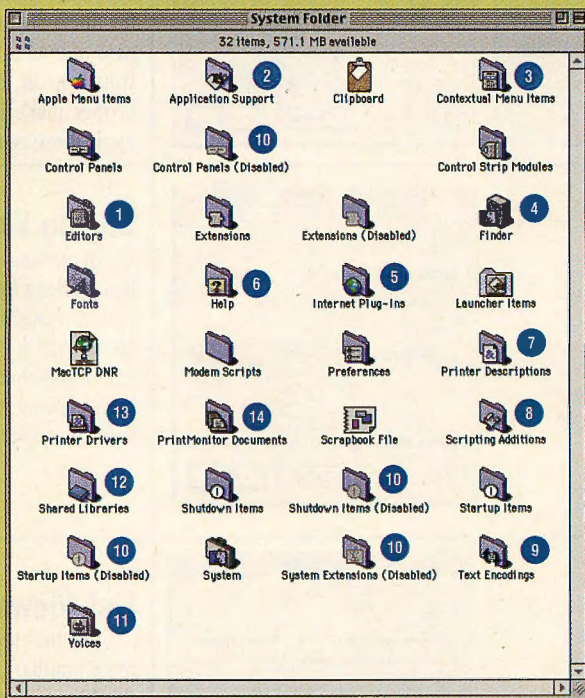
1. Editors—Finally, the OpenDoc Editors folder has achieved blessed status. Although it always has been installed with OpenDoc, it now is embraced in the System Folder. However, because Apple has stopped developing OpenDoc, this feature is aimed more at corporations that have created custom apps using OpenDoc.

2. Application Support—Items such as the Claris folder, which floated in the System Folder, now lives here.

3. Contextual Menu Items—Contextual menus, as they are created for applications, live here.

4. Finder—This is not new, but the icon sure is.

5. Internet Plug-Ins—Extensions to Internet applications may be installed in this folder.



14. PrintMonitor Documents—This folder has been around since PrintMonitor itself, but now it has the honor of its own icon.

13. Printer Drivers—Need to add a printer to the Chooser? Just drop its driver software here.

12. Shared libraries—All those shared libraries that have been cluttering up your System Folder may someday move here.

11. Voices—The voices used by your Mac when it speaks are stored here.

10. Disabled folders—The folders generated by extension management software now have custom grayed-out icons.

9. Text Encodings—Those funky files that Cyberdog installs in your System Folder now have a place to live.

6. Help—Developers can put their help files here.

7. Printer Descriptions—This folder moved out of the Extensions folder and received its own icon.

8. Scripting Additions—Now, AppleScripts have their own custom home in the System Folder.

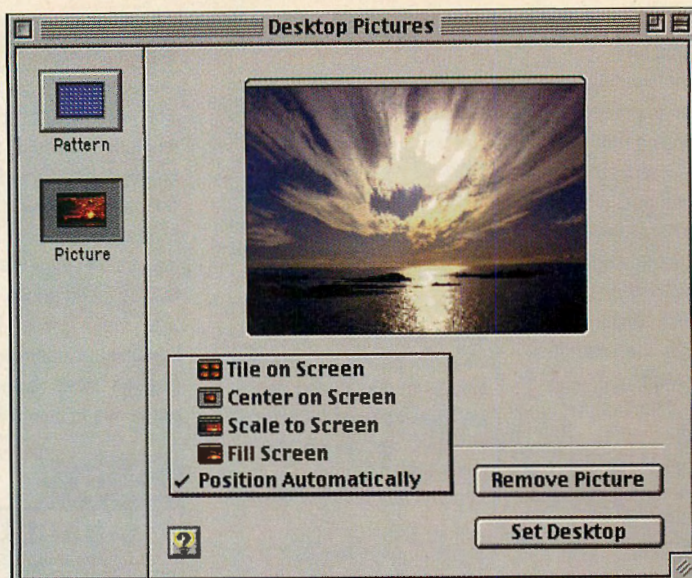
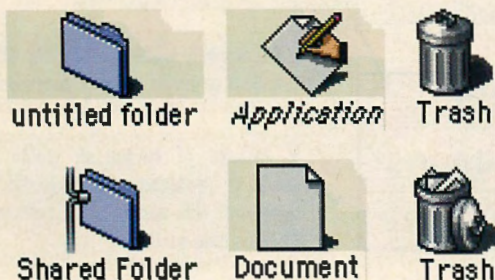


# Appearance

This is one of the biggies. Mac OS 8 added an ultramod 3D grayscale look—what Apple calls the *platinum appearance*—to all windows, icons, control panels, and menus.

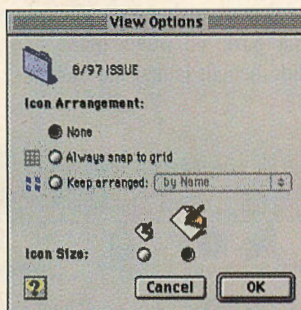
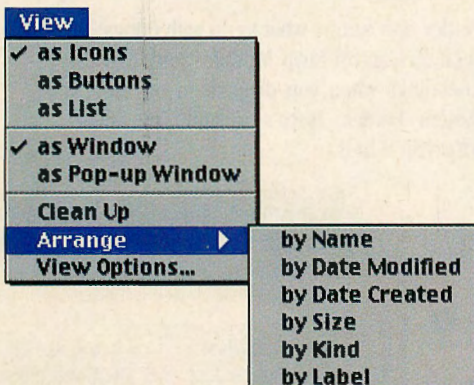
## Icons

One of the first things that will catch your eye in Mac OS 8 (especially if you haven't been using Aaron or Kaleidoscope) is lots of new icons. Here's a look at six of them.



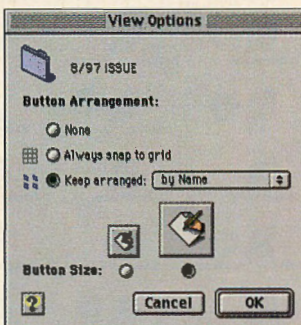
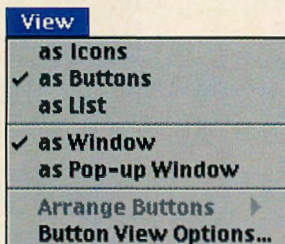
## Desktop Pictures

With the new Desktop Pictures control panel, you can specify a picture (in PICT, JPEG, or other file formats) to occupy your desktop. The standard desktop patterns are still available, if you prefer to use them, and some of their settings are accessible via desktop contextual menus. The control panel above shows the Options pop-up menu activated.



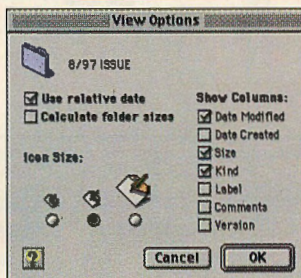
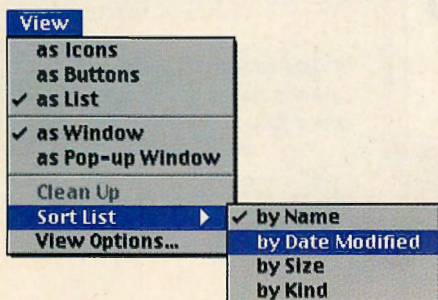
## Icon Views

By using the View Options control panel under View as Icons, you can change your icons' size. What's far cooler, though, is that you also may arrange your icons by name, size, date *created* or date *modified* (not just plain date, as in previous Systems), label, or other attributes—just the thing for those of you who like icons but also like the tidiness of the list view. When keeping icons arranged, if you drop in a new item, it automatically takes its proper place in the arrangement scheme. You can apply these settings to the desktop as well.



## Button Views

By viewing a window as buttons, you create a view that works a lot like the Launcher. A single click on a button opens it. What could be simpler? Through the View Options control panel, you also can choose the size of your buttons. Yes, it does too matter, especially when dealing with limited screen real estate. You can apply these settings to the desktop.



## List Views

The list view selection of options is probably the most familiar; you've seen these choices before, in the Views control panel. What's interesting here is that you can choose which columns appear in the list view. If you like a neat, compact list view (say, only the name), choose one column. If you want tons of data in your list view, check all the columns.



## Windows

Before you write us to say, "I found something that just isn't possible," let us first say, "You're right." This window could never be seen under Mac OS 8; some of the icons don't appear together, and some don't appear at all in the list view. We hacked this window together to show you what you *might* be seeing.

10. Scroll thumb—Although the scroll thumb doesn't look much different, it does something new: live scrolling. Just drag it, and the window's contents scroll smoothly along.

9. List view feedback—When you select a category by which to view your list, it depresses like a button, and the column below it turns a darker shade of gray.

8. Wider grab zone—Now you can move your window by clicking on any of its sides as well as by clicking on the title bar.

7. WindowShade control—As previewed in Aaron and Kaleidoscope, the WindowShade control has been moved to the right of the zoom box. Windows roll up with a click. Option-click rolls up all windows at once. You can set the control so that windows roll up the old-fashioned way—by double-clicking the title bar.

6. New header information—The disk information header was added to all windows; it shows only how many files are present and how much free space is available.

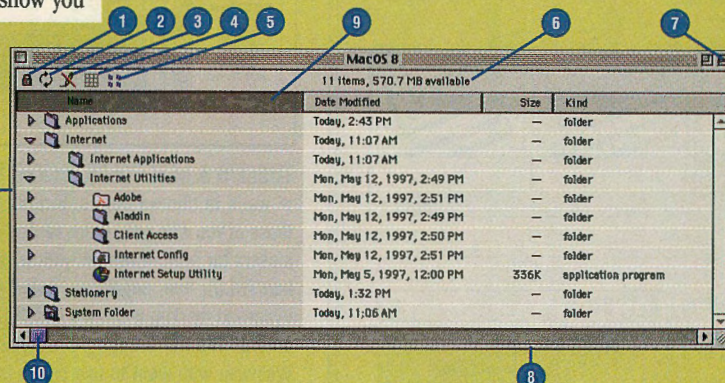
5. Keep arranged by—When this icon appears, all the elements in the window keep themselves arranged by one of their attributes (such as name or date created).

4. Snap to grid—When you see this icon, all icons snap to the grid (not possible in a list view).

1. Locked volume—This indicates a locked volume (such as a CD-ROM).

2. Window update arrows—These chase each other as your Mac refreshes the window.

3. No writing—This icon appears when something is copying. It indicates that, at least temporarily, nothing can write to this window.



## Handy Pop-up Window Trick

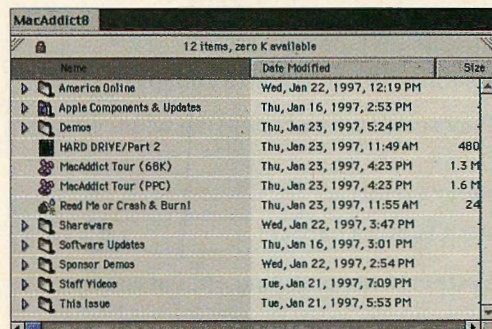
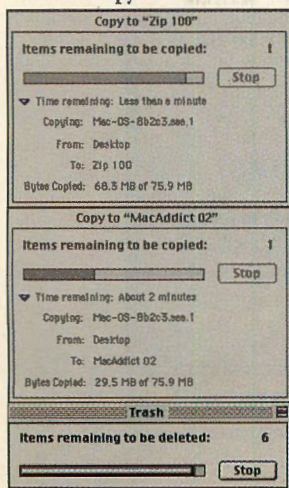
Here's something cool to do with pop-up windows in Mac OS 8. Create a folder, and fill it with aliases for all the applications to which you drag and drop files. View the folder's contents by small icon, have it stay arranged by name, resize the folder to be just wide enough for a single column, and make it a pop-up window. Now, when you need to drag and drop a file, just drag

it over to the tab, hold it there for a second, and the folder will slide open. Drop the file onto the appropriate application, and the folder will slide closed, and the application will launch, opening your file. Slick trick, eh? Thanks to Peter Lowe, Mac OS 8 product manager, for that idea.

## Threaded Finder

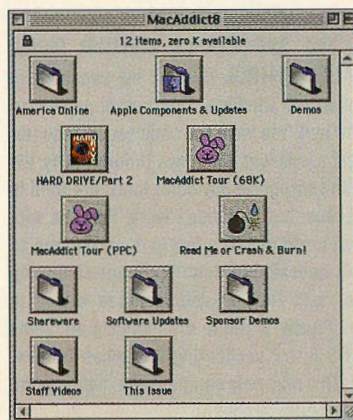
Aside from being PowerPC native, the Mac OS 8 Finder is threaded, which means you can copy several files, empty the Trash, and have windows update in the background all at the same time. You no longer have to suffer the derision of your Windows-using friends because you must set aside time to copy that 65MB file to your Zip drive—just start that copy and get on with your life. The Finder obediently chugs along with the copy while you do other things, such as tidy your hard drive (and empty your Trash) or start another copy.

The Copy dialog box reflects this new way of operating. Instead of a simple progress bar with a Stop button, the Copy dialog box now includes an estimate of time remaining to complete the copy and an expansion triangle. Click the triangle, and you get more information about the copy, including the file being copied, where it's copying from, where it's copying to, and how many bytes have been copied. Whew. More than you ever wanted to know about your copying activities, all right here in Mac OS 8.



**AN ENTIRELY NEW KIND OF WINDOW**, the pop-up window attaches to the bottom of the screen. Just move any window close to the bottom of the screen (or choose "as Pop-up Window" from the View menu), and it attaches to the bottom of the desktop as a tab. Click the tab once, and the window pops up;

click the tab again, and it rolls closed. To make a pop-up window into a regular window, all you have to do is grab it by the tab and pull it loose from the bottom of the screen. The diagonal lines in the upper left- and right-hand corners are size thumbs, which resize the window while it's attached to the bottom of the screen.

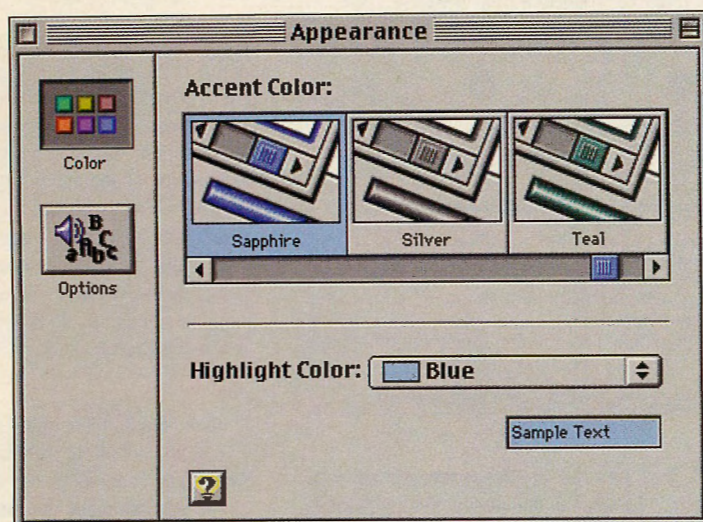


**LOOKS SUSPICIOUSLY LIKE THE LAUNCHER, DOESN'T IT?** Viewing a window's contents as buttons makes items single-clickable. Combine that simplification with the short menus available under the new Finder Preferences dialog box, and you can customize a Mac for the younger members of your family.

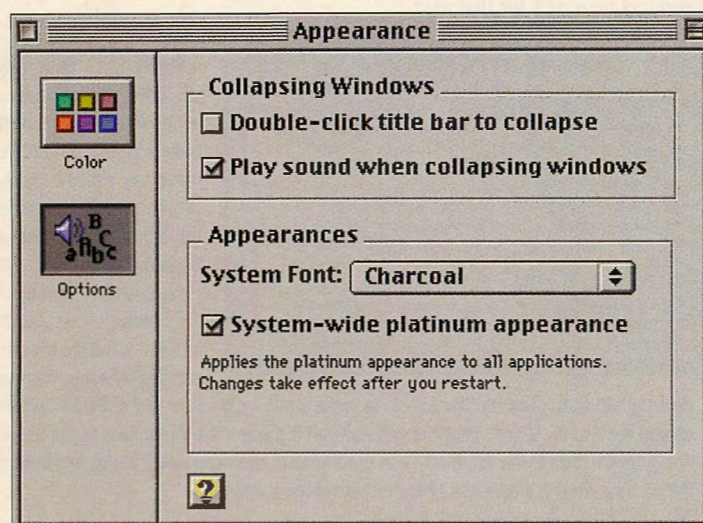


# Controls

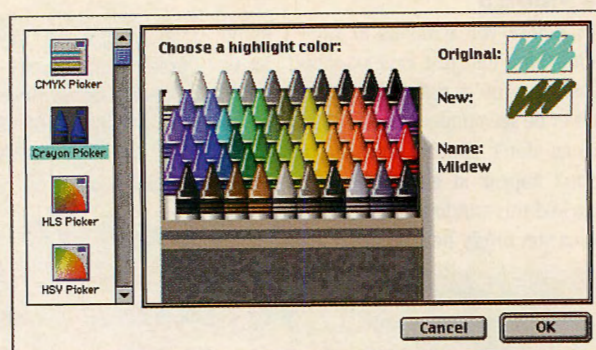
**M**ac OS 8 has a host of new and improved control panels. Although this sounds like an ad for laundry detergent, just take a look at what you can play with when you install Mac OS 8.



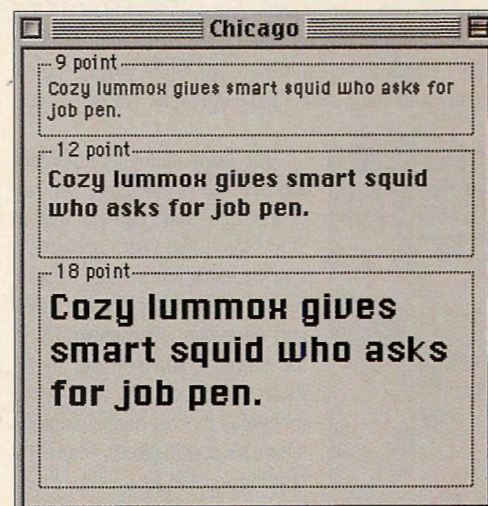
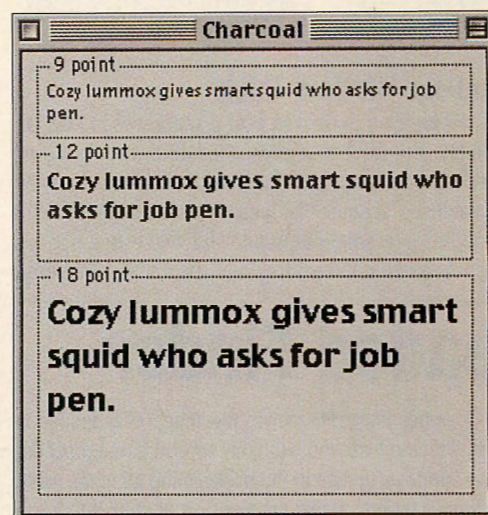
**THE NEW APPEARANCE CONTROL PANEL** (borrowed from Copland and replicated in third-party extensions such as Aaron and Kaleidoscope) gives you influence over how windows look. In the Color section, select the accent color, which governs the color of targeted windows, the scroll thumb, and the progress bar. Nope, no custom window shapes yet. Here, you also can change the highlight color, as you could in Mac OS 7.x.



**THE OPTIONS SECTION OF THE APPEARANCE CONTROL PANEL GOVERNS THE WINDOWSHADE CONTROL** (turn on the capability to double-click the title bar to collapse a window). This control panel also is where you change the System font. You have two choices: Chicago (for those who like the old ways) and a new font, Charcoal. Unfortunately, the Appearance control panel doesn't recognize any other fonts. We tried to fool it with some renaming tactics, but that didn't work. Perhaps with some fancy work in ResEdit, you could modify a font to be recognized as a System font. Cover-your-butt caveat: We don't recommend fussing around in your System Folder with ResEdit unless you're willing to endure some possible bad juju. Finally, if you're experiencing problems with applications under Mac OS 8, try unchecking the option for system-wide platinum appearance. This may help compatibility (although we didn't experience a single compatibility problem).

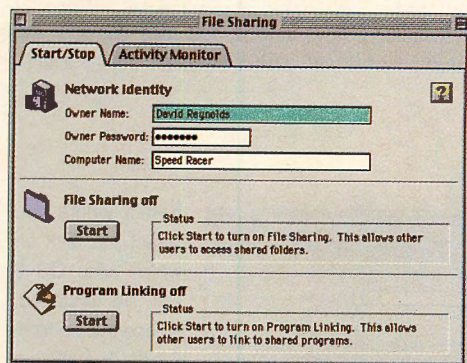


**THERE'S A NEW COLOR PICKER IN TOWN**, folks, and it gives you lots of ways to choose colors, including this nifty crayon color picker. For those of you who want more control over your colors, there also are color pickers for cyan, magenta, yellow, black (CMYK); hue, lightness, saturation (HLS); hue, saturation, value (HSV); red, green, blue (RGB); and hypertext markup language (HTML). Which of these things is not like the others? The HTML color picker, which is especially useful for the not-so-Webwise who want to use colors in HTML, as it registers colors in the six-character hexadecimal notation used in HTML. As an added bonus, an eyedropper tool lifts a color from anywhere on your display when you hold down the Option key while the color picker is active.

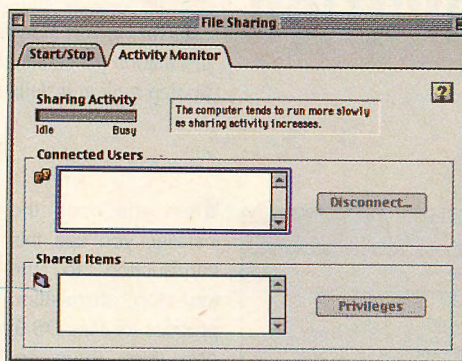


**MAC OS 8 INCLUDES A NEW SYSTEM FONT:** Charcoal. Compare it with its old counterpart, Chicago, and you'll never go back. Chicago is so early '90s.

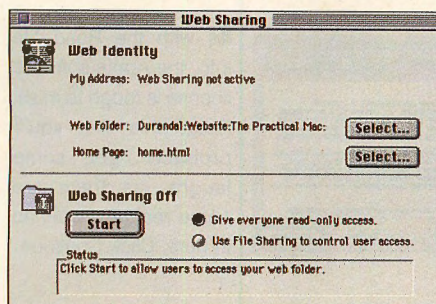




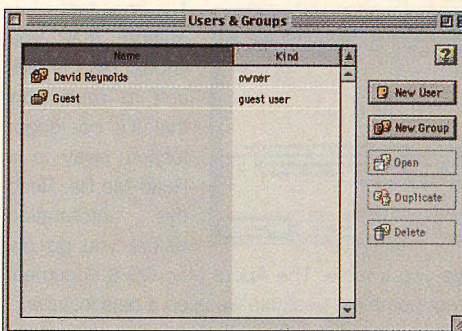
ALTHOUGH IT DOESN'T ENCOMPASS ALL THE NETWORKING FUNCTIONS, THE FILE SHARING CONTROL PANEL now includes both the old Sharing Setup and File Sharing Monitor control panels. The new panel is divided into Start/Stop and Activity Monitor via a tabbed window. The Start/Stop panel looks quite familiar. Here, you set your Mac's identity and password, and turn on or off file sharing and program linking.



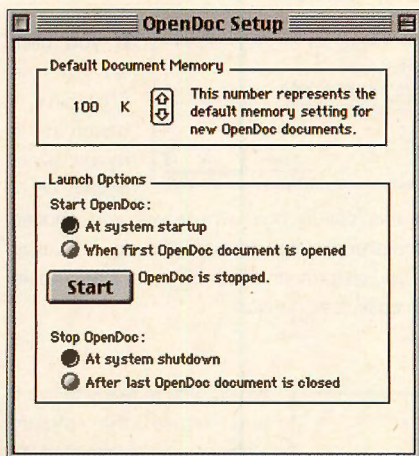
THE FILE SHARING MONITOR HAS BEEN TURNED INTO AN ACTIVITY MONITOR. Here, you'll be able to see who is connected to your Mac, how much activity your Mac is handling, and what items are being shared. Here, you can disconnect anyone who is connected to your Mac, and you can adjust the access privileges for all shared items.



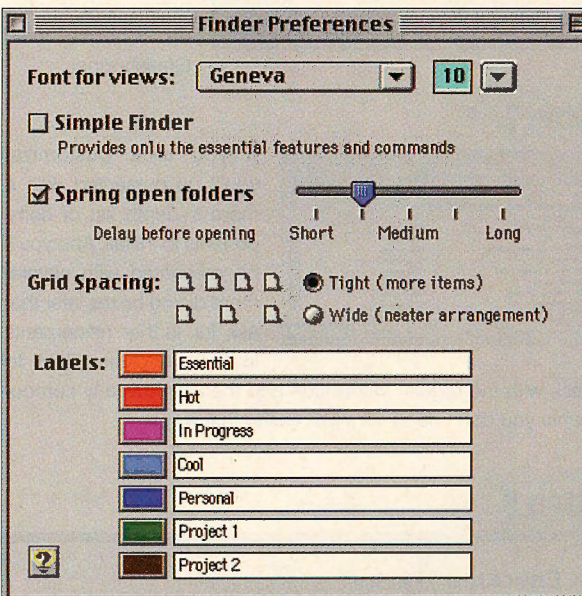
APPLE ADDED THE WEB SHARING CONTROL PANEL, taking a lead from the File Sharing control panel. Now, if you're interested in putting up a Web page, all you have to do is set up the site in a folder on your Mac, then fire up the Web Sharing control panel, select a Web folder, select the home page, and click Start. You can also use your File Sharing control panel to decide who can and who cannot access your Web page. If you don't select an HTML page, the Web Sharing control panel shares the contents of that folder via Personal NetFinder (which serves up the contents of a disk over the Internet as if it were a Finder window). Other users connected to your Mac via the Internet then can browse the folder almost as if it were another Finder window as seen through a Web browser.



THE USERS & GROUPS CONTROL PANEL REMAINS A SEPARATE ENTITY, although it seems like a natural fit in the multiple-mode file sharing control panel. It was transformed, however, from what looked like a regular Mac window (but was actually a control panel) into an actual control panel with buttons and a list. Definitely less confusing.



OPENDOC USERS WILL BE PLEASED to see some of the changes to the OpenDoc Setup control panel. Now, you can do more than just set the default memory for new OpenDoc documents; you can set the control panel so that OpenDoc launches when your Mac starts, which cuts down the wait time when you open an OpenDoc document.



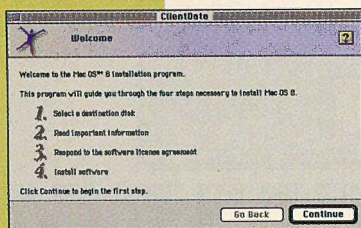
MUCH OF THE CONTENT OF THE OLD GENERAL AND LABELS CONTROL PANELS NOW IS IN THE FINDER PREFERENCES. Although it strictly isn't a control panel (you access it through the Finder's Edit menu), the Finder Preferences dialog box acts like one. Here, you'll also find controls that activate the Simple Finder (which gives only basic features, short menus, and basic commands), and a slider that controls how long you wait before a spring-open folder opens.



# Installation

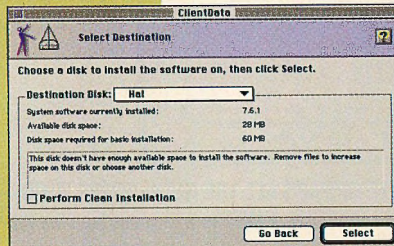
The work of simplifying System software installation that began in Mac OS 7.6 carried forward in Mac OS 8. The software installer now is unified; you truly can start the installation process and walk away—a feat impossible with earlier installers. Here's a step-by-step look at installation.

## Step 1



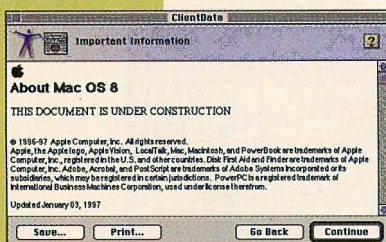
When you open the installer, you see this introduction to the four-step installation process for Mac OS 8. (We think there are more than four steps, but we won't quibble.)

## Step 2



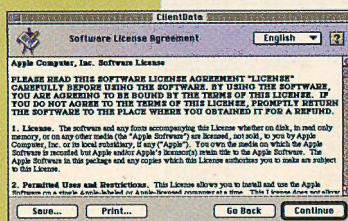
Here's where you select the disk on which Mac OS 8 will be installed. Notice the Perform Clean Installation checkbox in the lower left-hand corner—a big improvement over the hidden clean install option in System 7.5.

## Step 3



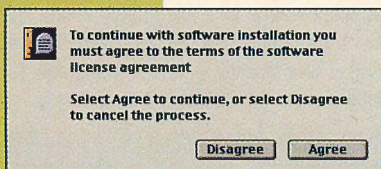
The important information that you should read is difficult to miss now that it's no longer tucked away in a Read Me file. Read this information before you go on, as it could save you trouble. The About Mac OS 8 document shown here is not complete because we used a beta installer.

## Step 4



As with the Read Me info, the Apple software license is tough to miss. Read this file—you'll probably get some laughs, as there are some real gems buried in here. Click Continue.

## Step 5



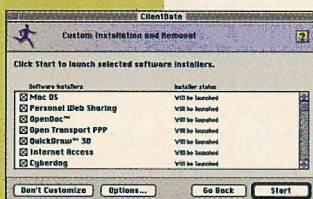
But wait! You must either agree or disagree with the license agreement before you continue. Choose well, Grasshopper.

## Step 6



Finally, you face the main installation screen. Here, you choose the optional components for your Mac, or you can click Customize to further refine your choices.

## Step 7



If you click Customize, you'll be presented with a more in-depth list of components to install. And you'll be presented with several more dialog boxes later that ask for further refinements in your choices. Best to

stick with the regular installation and then remove any components you don't need—it's just easier that way.

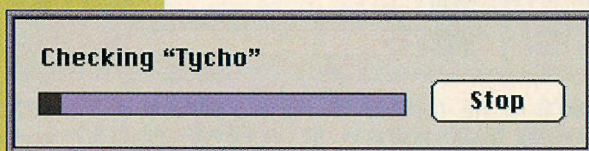
## Step 8



be presented with this dialog box, which lets you choose whether or not the installer updates the hard disk drivers. Leave this checked unless you've formatted your disk with a non-Apple drive utility (in which case, it won't work).

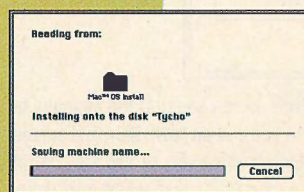
If you click on the Options... button in the main installer screen, you'll

## Step 9



The installer now checks the hard drive for corruption (a feature we'd like to see elsewhere in society). This feature and the updated hard disk drivers go further toward making a stable system than any bug fixes do.

## Step 10

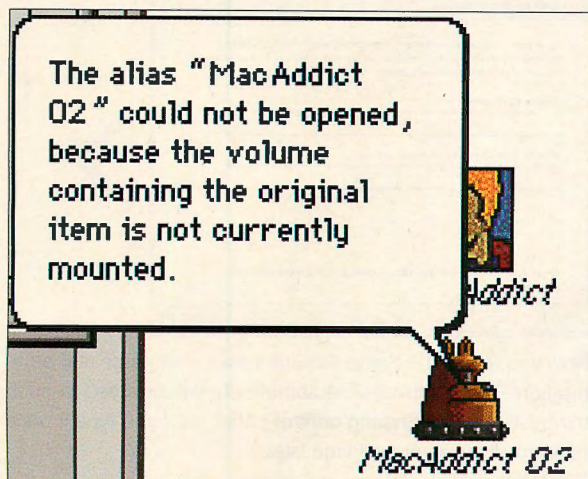


Finally, you're ready to roll. If you chose the regular installer and completed all the other steps, you can walk away from your Mac. All the proper components will install, and you'll be ready to rock within an hour.



# Information

**M**ac OS 8 prepares your Mac to give you access to all the information you could possibly want—or need. With the Info Center, contextual menus, and Internet access all over the place, you'll know more about the Mac than Jeff Raskin does.



**BALLOON HELP HAS BEEN MODIFIED** to provide assistance on its own as part of a new “hot help” capability. For example, when you move a file over the alias to an unmounted server, balloon help kicks in and lets you know why the alias could not be mounted—all without you having to turn on balloon help for the answer.

## DESKTOP

Help
New Folder
View
View Options...
Change Desktop Background...

## DESKTOP PRINTER

Help
Open
✓ Start Queue
Stop Queue
Get Info
Make Alias
Get Printer Configuration
✓ Set as Default Printer
Open Web Page
Search the Internet

## FOLDER

Help
Open
Move To Trash
Get Info
Label
Sharing...
Duplicate
Make Alias

## DISK

Help
Open
Eject
Get Info
Label
Sharing...
Make Alias

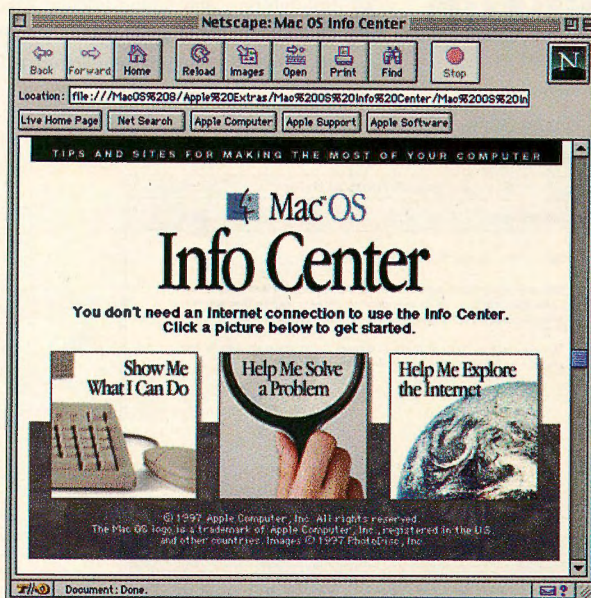
## FILE

Help
Open
Move To Trash
Get Info
Label
Duplicate
Make Alias

## HARD DISK

Help
Open
Get Info
Label
Sharing...
Make Alias

**ONE OTHER WAY THAT MAC OS 8 PROVIDES INFORMATION** to help you without getting in your way is by contextual menus. By Control-clicking an item (or the desktop), you call up the contextual menu for that item. These menus differ depending on the object that you click (thus the term *contextual*). Here, we have contextual menus for the desktop, a desktop printer, a disk, a file, a folder, and the Trash. Getting acclimated to this way of manipulating items takes a little while, but you'll like being able to change the desktop pattern without opening the Desktop Pictures control panel.



**NEW IN MAC OS 8 IS THE MAC OS INFO CENTER.** This collection of HTML and graphics (nearly 5MB worth) contains information on everything from new Mac OS features to troubleshooting tips. Although most of this information is on local HTML files (which means you don't have to be connected to the Internet to use it), the Mac OS Info Center offers links that will trigger an Internet connection to external sites. If you have questions about your Mac, the Info Center should help you answer them. It even puts an alias for the Info Center on your desktop.

## Internet Access

Apple included several ways to connect to the Internet in Mac OS 8. The installer puts two icons—Browse the Internet and Mail—on your desktop. These little applications link to your Web browser and your email client, respectively. Mac OS 8 installs Claris EMailer Lite and either Netscape Navigator or Microsoft Internet Explorer to give you built-in Internet access. Mac OS 8 also includes a Connect To... application in the Apple Menu Items folder that lets you enter a URL and then launches your Web browser and passes it the URL. That way, you can access any URL via the Apple menu.



Enter an Internet address (URL) to connect to:

www.apple.com

Cancel

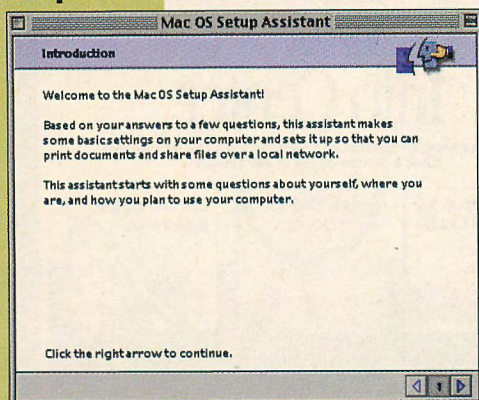
Connect



# Setup

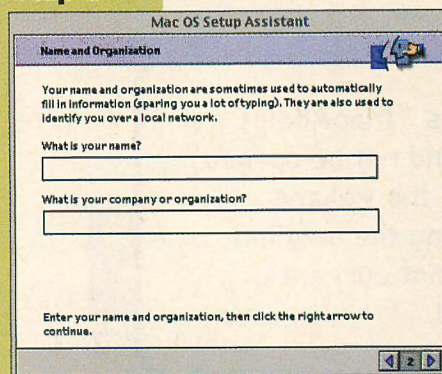
Although they may sound uncomfortably like Microsoft Wizards, Apple included some setup assistants in Mac OS 8. These applications walk you through changing some of your Mac's settings—an important thing after installing new System software.

## Step 1



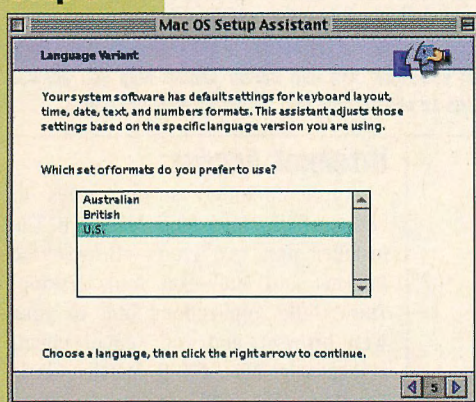
When you first restart your Mac after installing Mac OS 8, the Mac OS Setup Assistant launches and starts asking questions. Here, it explains itself.

## Step 2



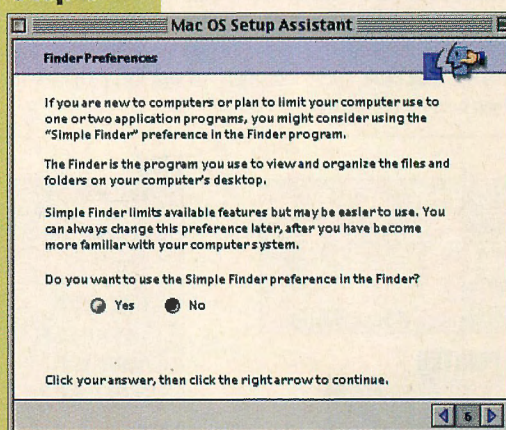
Now you're off. The Setup Assistant asks your name and organization. This information automatically will be used in such things as the File Sharing control panel, so if you type it once now, you'll save yourself time later.

## Step 5



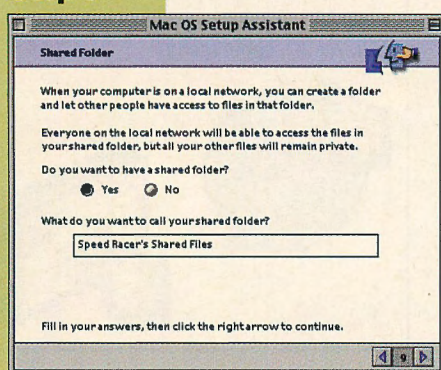
Depending on the language variant you use, you can choose a different variant in this screen. This setting affects time, date, text, and number formats.

## Step 6



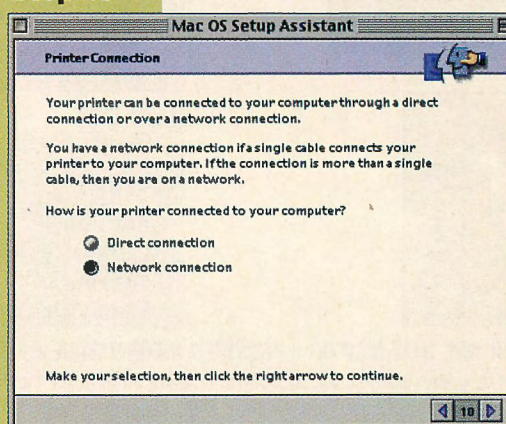
The long description here explains the differences between the regular Finder and the Simple Finder, then asks you which one you want set in the Finder Preferences dialog box.

## Step 9



After you choose a name and a password, the assistant asks if you want to create a shared folder. This option sets up a shared folder available to everyone on the network, but it keeps the rest of your files private and secure. It then asks you to name the shared folder.

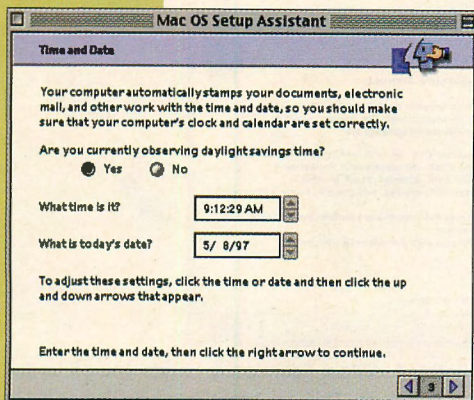
## Step 10



If you use a printer with your Mac, you must tell the assistant how the printer is connected. Here, we chose the network connection.

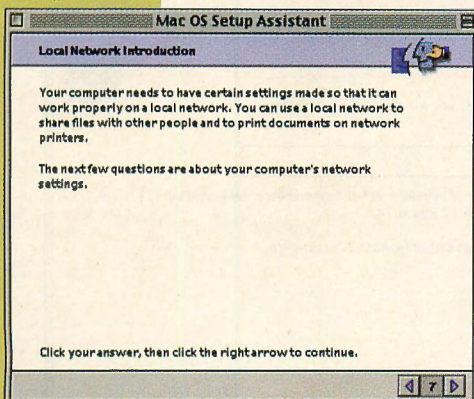


## Step 3



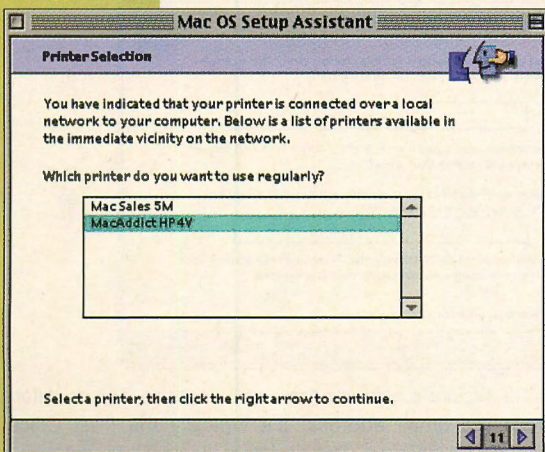
Here, the assistant checks the clock and calendar to make sure that the time and date are accurate. Let the computer know if you are observing daylight saving time or not.

## Step 7



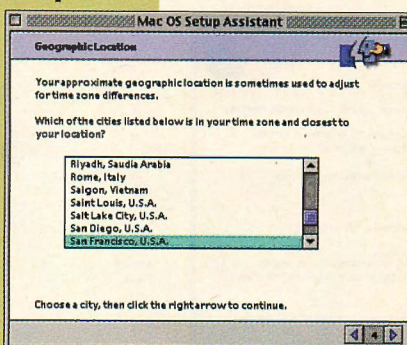
Halfway there, the Setup Assistant pauses to let you know about its plans—how considerate. The next section will deal with network settings. These assistants really save time and trouble.

## Step 11



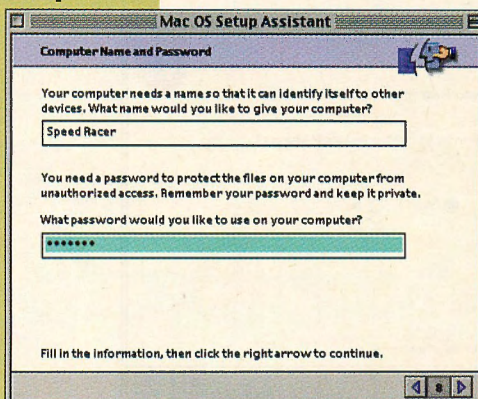
The assistant looks on the network, then lists all the printers in your network zone. Select the one you normally use.

## Step 4



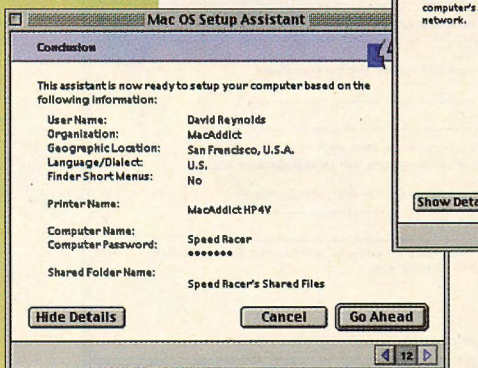
The assistant also allows you to choose your geographic location. The need for this information can pop up in some surprising places. For example, the desktop-appearance application Sundial asks for your location so that it can accurately simulate sunrise and sunset.

## Step 8

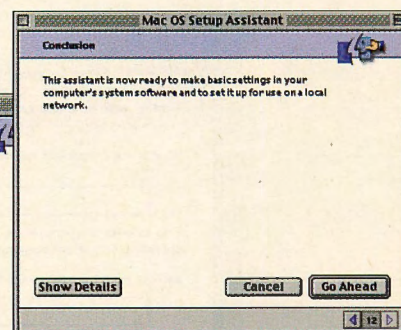


Here the assistant asks you to name your Mac and give it a password. This information is used to set up file sharing and make sure that no unauthorized users get their grubby hands inside your Mac.

## Step 12



Finally, the assistant is done gathering information. It presents this data in a summary screen, or you may set it to hide those details. When you press the Go Ahead button, the assistant sets up your Mac with those settings. This short process helps ensure you don't forget a setting.

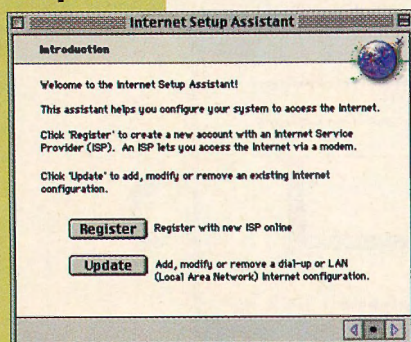




# Internet Setup

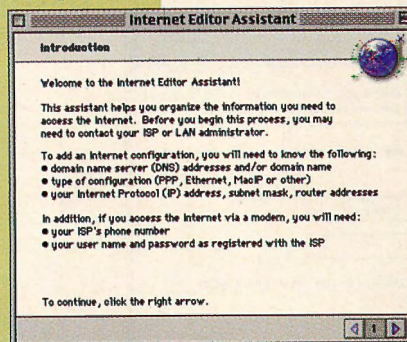
Taking its cue as the easiest-to-use computer, the Mac now offers easier Internet setup. You can do this step manually, or Mac OS's Internet Setup Assistant will walk you through it.

## Step 1



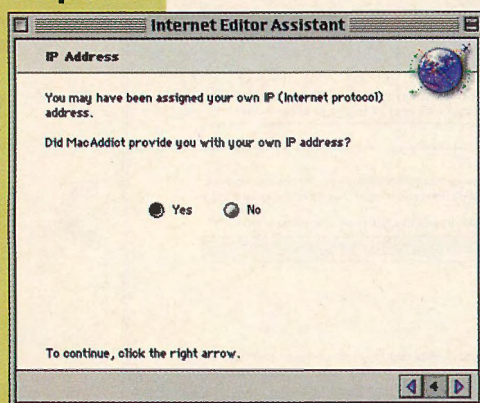
Like the Mac OS Setup Assistant, the Internet Setup Assistant explains itself, then asks if you want to register with a new Internet service provider (great if you don't already have Internet service) or if you want to update a configuration (appropriate if you already have Internet service).

## Step 2



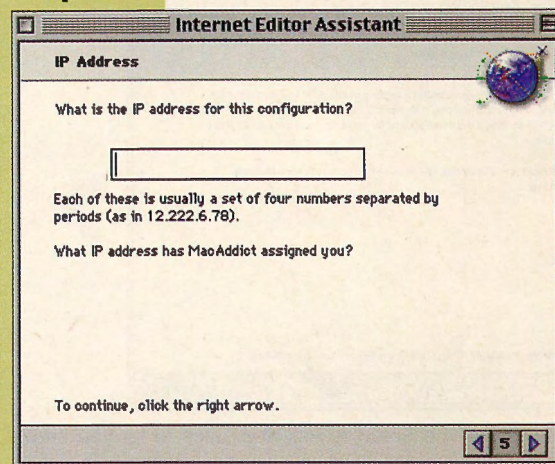
The Internet Setup Assistant seamlessly hands you off to the Internet Editor Assistant. This assistant lets you know what information you'll need (such as the domain name server address, IP address, and ISP phone number) to set up your Mac for Internet access.

## Step 5



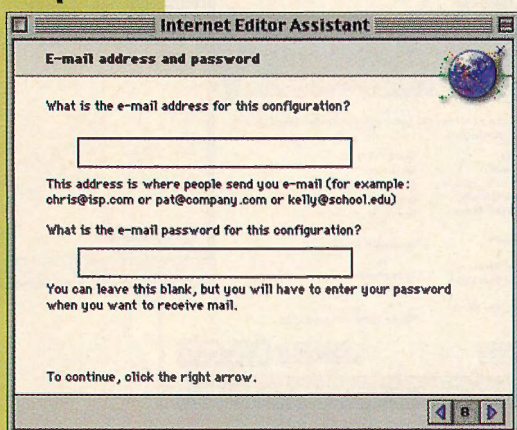
If your ISP gave you an IP address, click Yes. If not, click No. Most ISPs these days use dynamic allocation and so don't assign an IP address.

## Step 6



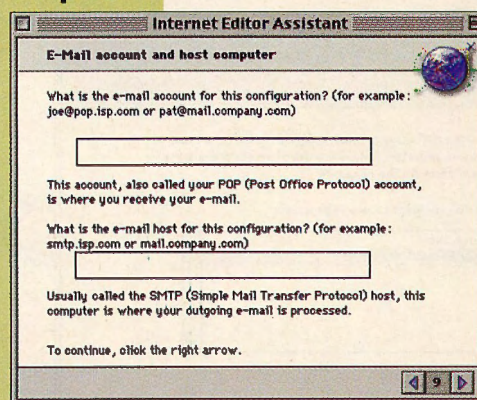
Here, the assistant asks for your IP address.

## Step 9



On to email. The assistant asks for your email address and password. You may leave the password blank, but then you'll receive a prompt for your password every time you want to get your mail.

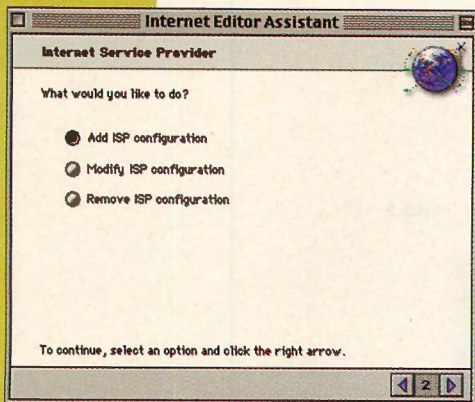
## Step 10



Next, the assistant asks for the email account. This is different from the email address; it's typically the Post Office Protocol (POP) account. The assistant also asks for the email host. Typically, this is the Simple Mail Transfer Protocol (SMTP) host computer.

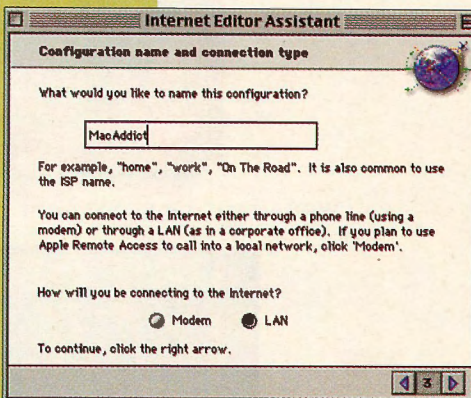


## Step 3



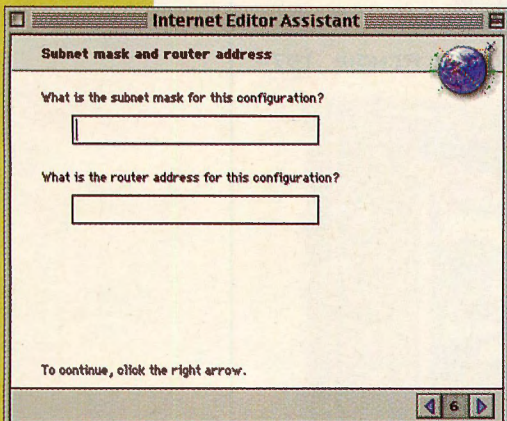
Here, the assistant asks you whether you want to add an ISP configuration, or modify or remove one. If you just installed Mac OS 8, you'll be adding an ISP configuration.

## Step 4



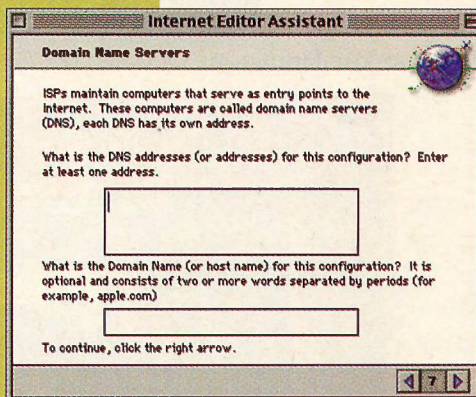
The assistant now asks you to name the configuration and then decide how you will connect to the Internet. We chose LAN because our Mac uses an Ethernet connection.

## Step 7



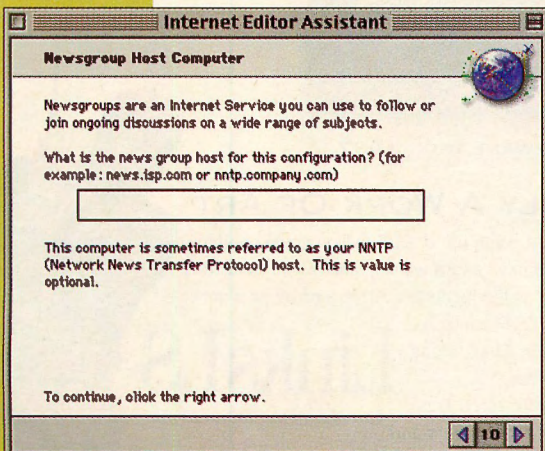
Now we're getting technical. The assistant asks for your subnet mask and router address.

## Step 8



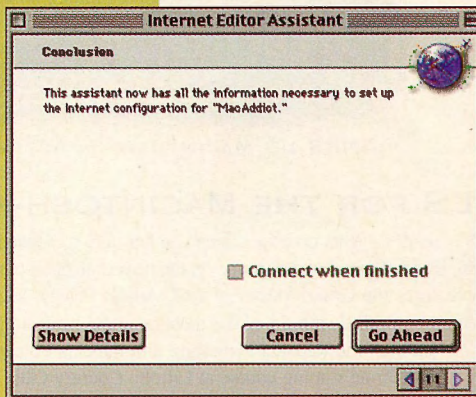
Even more complicated, the assistant asks for your domain name server address and domain name. Enter these, and things get a little less complicated.

## Step 11



The assistant then asks for the Network News Transfer Protocol (NNTP) server, which accesses newsgroups. If you don't use the Usenet, don't worry about filling in this field.

## Step 12



Finally, you can tell the assistant to set up your Internet configuration. Changes will be made to your TCP/IP control panel and possibly to your Modem and PPP control panels. A checkbox lets you connect when the assistant is finished with the setup so that you can check your settings. ☒

Associate Editor David Reynolds wishes he could organize his life as well as Apple organized Mac OS 8.





"WOMAN WITH A FLOWER" by PAUL GAUGUIN 1891



"BALL AT THE MOULIN DE LA GALETTE" by PIERRE AUGUSTE RENOIR 1876



"LINKS LS MACINTOSH" by ACCESS SOFTWARE INC. 1997



## EW LINKS LS FOR THE MACINTOSH—TRULY A WORK OF ART

Seconds after Links LS Macintosh lights up your screen you may feel compelled to frame it. With up to 16.7 million colors, nothing compares to the detail in every leaf, blade of grass, and skyscape on the newest addition of the world's most award-winning line of golf simulators.

Links LS Macintosh proudly features the Grand Master of Golf, Arnold Palmer. You'll marvel as the legendary Arnie tees off as a movie-quality 30 frame per second animation. Packed with 54 of the most beautiful holes in golf, Links LS Macintosh

features the Kapalua Plantation and Kapalua Village courses in Maui, along with Arnie's home course at Latrobe Country Club, near Pittsburg.

Other features include modem/network play, fog and microtextured grass, more realistic ball-flight dynamics, 3D virtual reality tours and exclusive multimedia footage. For more information call 1.800.800.4880 or visit us at

[www.AccessSoftware.com](http://www.AccessSoftware.com). Frame not included. Requires PowerPC

**LinksLS**  
*Macintosh*



**ACCESS**  
SOFTWARE INCORPORATED

4750 Wiley Post Way, Bldg. 1 Ste. 200  
Salt Lake City, Utah 84116  
801.359.2900 Fax 801.359.1273







# The Frugal Designer

By Nikki Echler

**C**ross-stitched tissue box covers. Bespectacled crocheted grannies disguising rolls of toilet paper. The ever-hideous latch hook rug. Even if you haven't been to a craft show in the last 100 years, chances are good you've either seen one of these tacky home projects or, God forbid, received one as a gift. Worse yet, perhaps you've been responsible for one or more yourself. Well, put down your weapons of evil and get ready to use your Mac for a new class of home crafts.

Although your Mac doesn't come with glue-gun attachments or sewing machine plug-ins, you can still use it to create personalized home projects that are even more useful than the cheeseball crafts of yesteryear. Greeting cards, signs, newsletters, business cards, envelopes, letterhead, and silly certificates can all be made with less fuss than it takes for you to fire up your Civic and drive to the closest Hallmark store.

And you don't need an expensive page layout program such as Adobe PageMaker to do it. Chances are good that if you have

ClarisWorks (and if you own a Mac, you probably do), you've already used the program's "stationery" for creating everything from newsletters to personal letterhead. You may have noticed, however, that though the program is simple enough for a brain donor to use, it's a little inflexible—it falls short on creative extras, such as multiple templates, clip art, and fonts, that make designing home print projects fun for the amateur designer.

Fortunately, for less than \$100 (in some cases, much less) you can bring home any one of several home printing packages that come loaded with templates, clip art, fonts, and ready-made projects. To see if these perks really make the package (you may decide to stick with ClarisWorks after all), we used five different programs to create five different projects, which we describe in how-to detail.

So, the next time Johnny needs party invitations for his birthday bash, or you're nominated to create the club newsletter, or you start your own business and have to design your own stationery and business cards, just do it...yourself. We show you how.



FIND A  
DEMO of  
MacPublisher  
on The Disc.



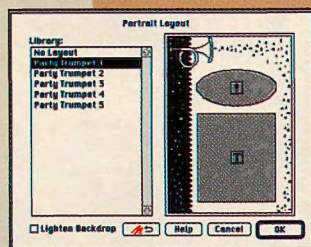
## Build Your Own Flyer

**Step 1.** Pick a project. Select Sign to access the sign templates. (Find even



more projects by clicking Print Shop Deluxe Companion CD, which installs from the same disc.)

**Step 2.** Pick a backdrop suitable to your event (or choose Blank to start from scratch), then choose a layout. Every



backdrop comes with a selection of predefined layouts to give nondesigners ideas for their projects.

Understanding the following symbols, which label each object and text box on the template, will help:



Add a graphic

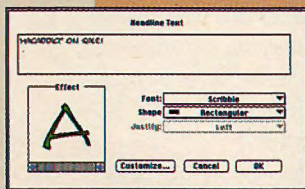


Headline text



Body text

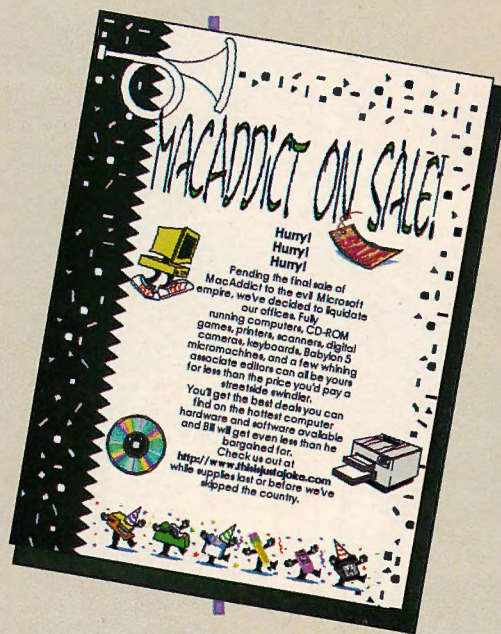
**Step 3.** Create a headline. Click the pointer tool in your toolbox, then double-click the headline box. A window appears in which you can customize your text by adding gradients, fills, and color as well



as twisting, turning, and slanting it in 21 different ways. Caveat: You can edit text in this way only

when working in a headline box, and you can change the font's point size only when working with body text.

**Step 4.** Rearrange and resize the text and object boxes, adding and editing art and text by clicking and dragging. To add more images, choose the size of the object box you want from the Object menu. You can choose square or row- or column-shaped boxes.



## The Print Shop CD Ensemble

**Company:** Brøderbund Software

**Price:** \$79 (street)

**Contact:** 800-521-6263, <http://www.broderbund.com>

**Requirements:** 2X CD-ROM, 68020 or faster, System 7.0.1 or later, 8MB of RAM, printer

**Projects:** 9

**Greeting card, sign, banner, letterhead, certificate, postcard, business card, envelope**

**Clip-art images:** 15,500 graphics and photos

**Fonts:** 100

**Best feature:** Superhuge clip-art collection

**Worst feature:** Superhuge array of templates

**Bonus feature:** Interface is actually easy to use.

**Gratuitous flamenco dancer clip art:** Yes

**T**he Print Shop CD Ensemble provides an easy way for nondesigners (and nonadults) to pull together a garden

variety of home publishing projects such as banners, greeting cards, and homemade certificates thanks to its simple, kidproof interface. Although many of the templates are cluttered shrines to bad design, the well-designed templates are pretty easy to spot. Once you've chosen a template, adding art and text is a breeze—just double-click a bear-labeled box to import your choice of a huge array of clip art and photos.

Although previous versions of Print Shop offered just enough rainbows, balloons, and lovable pup clip-art images to make your project look like the aftermath of a Care Bears explosion, this version comes packed with more than 15,500 images—some of which are pretty good. With almost 4,000 more images and almost 30 more fonts than the last version, the latest upgrade to Brøderbund's venerable Print Shop would be money well spent, if it still weren't so darn expensive.

## Cheap Tips

**1.** Don't feel obligated to use the templates included in this program. Although the product claims that using the Print Shop's predefined templates is like "having a professional designer at your side," we don't know any professional designer who would claim responsibility for most of these layouts.

**2.** Do feel free to import your own drawings, photos, and other art. They'll make the flyer seem more personable and probably will look better than much of the art included with the program.

**3.** Don't go crazy with colors just because you can. Sure, you could make every word in your flyer a different color of the Crayola box, but who would want to read it?

**4.** Don't forget to spell-check. Big typos are bad typos.

**5.** Try to use a large main image and a bold headline to attract attention.







## Cheap Tips

**1.** Make your text legible. A business card can make for tight confines once you've added all of your contact info, some art, and a slogan, but if you make the type too small to read, people won't read it. It has been nice *not* doing business with you.

**2.** Keep it simple. The less ornamentation on your card, the more legitimate you'll seem. Add balloon borders and a confetti background, and you might as well be running a clown school.

**3.** Order text by importance: Company, then name, title, and contact info is standard.

**4.** Design your card to reflect your business. Our mixture of barbed wire and bad religion works well for a gothic tattoo parlor, but a lawyer using the same edgy art might notice a decline in business.

**5.** Make sure you're not just in like with your design but in love with it. Once you have an expensive box of cards printed up and start handing them out, the cards are with you for better or worse, until the job you doth part.



## PrintMaster Gold

**Company:** Mindscape

**Price:** \$40 (street)

**Contact:** 800-234-3088, <http://www.mindscape.com>

**Requirements:** 2X CD-ROM, 33MHz 68030 or faster, System 7.0 or later, 16MB of RAM, printer

**Projects:** 11

Greeting card, banner, sign, label, envelope, certificate, calendar, letterhead, fax sheet, business card, note card

**Clip-art images:** 5,100

**Fonts:** 201

**Best feature:** Some of the clip art doesn't suck.

**Worst feature:** Either the Windoid interface or the audio assistance—we couldn't decide.

**Bonus feature:** Coloring-book printing option lets you print the outlines only of select PrintMaster graphics for offscreen fun.

**Gratuitous flamenco dancer clip art:** Yes

Good clip art is about as hard to find as a snowball in...the summertime, which makes PrintMaster Gold's collection of fonts and graphics so remarkable. Sure, many of the images qualify as basic clip-art crud, but there are so many images covering so many far-ranging topics that you're sure to find something to dress up your card, banner, or business card.

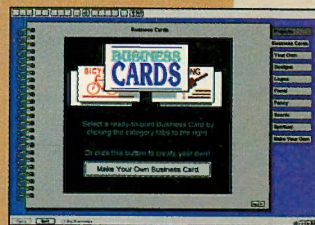
But to get anything done in PrintMaster requires a lot of clicking among ever-deepening nests of windows. You spend so much time staring at the screen while you wait for your images to redraw and trying to manipulate the awkward text boxes that you can't help

but notice how Windows-like the interface looks. To give your home designing experience a colder, more corporate cast, you enter your data into the ready-made projects by filling in database fields. Ick. But if you can stomach the program's clunky outer layer, you are rewarded with a versatile collection of smart, funny clip art and more ready-made projects than you're likely to use.



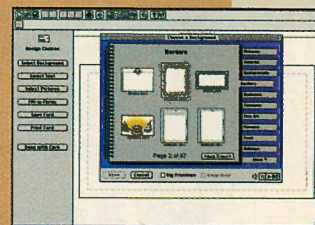
## Build Your Own Business Card

**Step 1.** Click on the Business Cards tab from the Projects album and pick a background. We decided to start from scratch—none of the templated designs appealed to us.



### Step 2.

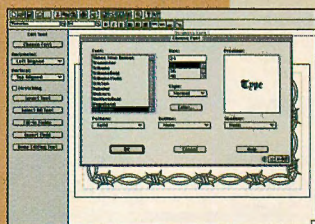
Select a background or border from the Picture album by picking New Background from the Background Menu. Double-click the image you want, or click the Open button.



**Step 3.** Add your logo, name, address, and any other text by selecting Add a New Text Box from the Text menu. For special effects such as slanted text, select Add a New Title Text Box.

### Step 4.

Click the Type and Edit Text button to type or change words. To edit text, highlight it and click the Choose Font button—this calls up the Choose Font window, where you can edit and preview text.



### Step 5.

To add art, select Add a New Picture from the Pictures menu. Peruse the Picture Album until you find an image.



**Step 6.** Print your design to see how it looks, but take it to a Kinko's or other print shop for a professional look.



## Build Your Own Greeting Card

**Step 1.** Travel through a series of wizards to pick your project, choose

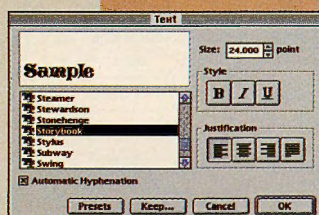


your method for creating the project (starting the QuickWay, from Scratch, or with a Sample), and

select a paper size. If you're creating a greeting card, decide which way you want it to fold. To continue, click Finish. (Makes sense, doesn't it?)

**Step 2.** Save now before your machine crashes, because it will.

**Step 3.** To add art to your cover, select Catalog from your Notebook on the left side of the screen, click Clip Art, double-click Special Occasions and then Wedding, and select and drag your image from the Notebook onto your awaiting canvas. Size your image and move it around by clicking the pointer tool in your toolbox and by pulling and pushing the inordinately large black boxes marking the edges of the image. Add a border for a framing effect.



**Step 4.**

Put your image to words by clicking the Text tool in your vertical toolbar and

creating a text box above your image on the cover. Type your message, then select it and click the red-tinged Text tool on your horizontal toolbar to call up a text editing box.

**Step 5.** Turn to the inside pages of your card by clicking the right-arrow button above the book icon in your tool palette. Add text and images the same way you did for the front cover.



Married, after all these years.

What took you so long?

Congratulations  
(finally)!!



Love,  
mild and sean

## Corel Print House

**Company:** Corel

**Price:** \$39.95 (SRP)

**Contact:** 800-772-6735, <http://www.corel.com>

**Requirements:** 2X CD-ROM, Power Macintosh, System 7.5 or later, 16MB of RAM, printer



**Projects:** 17

Greeting card, banner, business card, envelope, purchase order, invoice, memo, fax sheet, brochure, certificate, sign, label, calendar, membership card, coupon, ticket, bookmark

**Clip-art images:** 5,000, plus 1,000 photos

**Fonts:** More than 100 (including flamenco!)

**Best feature:** Time for plenty of bathroom breaks while you wait for your Mac to restart

**Worst feature:** Too many to narrow to just one—or two or three

**Bonus feature:** Clip-art caricatures of Steve Jobs and John Sculley

**Gratuitous flamenco dancer clip art:** Yes

**W**hat did we think of Corel Print House? The program has more bugs than a Florida swamp, and the editing tools are worse than clunky—they're downright uncontrollable. Being forced through an ugly channel of wizards before you can start your project is the first bad sign. Trying to select an image from the microscopic examples of clip art in the Notebook is the second warning. Attempting to do anything with that art or to add and edit text means the writing's on the wall. The handles on the editing boxes, though bulky and hard to miss, are difficult to grasp and a struggle to maneuver once you do. Text boxes don't always flow your text once you resize the box, scroll bars don't always scroll, corrupted files are common, and the organization is haphazard. Click Clip Art, then Africa, to call up examples of angels, dolls, and Easter eggs. Huh?

To edit a backdrop, you can't just click on the image and work your magic. You have to select Merger Backdrop from the Tools menu and Ungroup from the Arrange menu, then select the part of the backdrop you wish to edit and edit the shapes using the Shaper tool. Leave this nightmare to Windows users who like doing things the hard way.

## Cheap Tips

If you just can't think of anything witty to say in two sentences or less (it's that high school yearbook pressure all over again), you can bring deep meaning to your card by cribbing from one of the 1,000 canned phrases included with Print House. Here are some of our favorites. Use with caution.

**Front:** Happy Birthday, Grandma

**Back:** Here's a great big birthday hug from your favorite snuggle bug!

**Front:** This birthday card should leave you all choked up.

**Back:** It was made from a hairball!

**Front:** So you're having a birthday. Look at it this way...

**Back:** ...you're still younger than our copy machine!







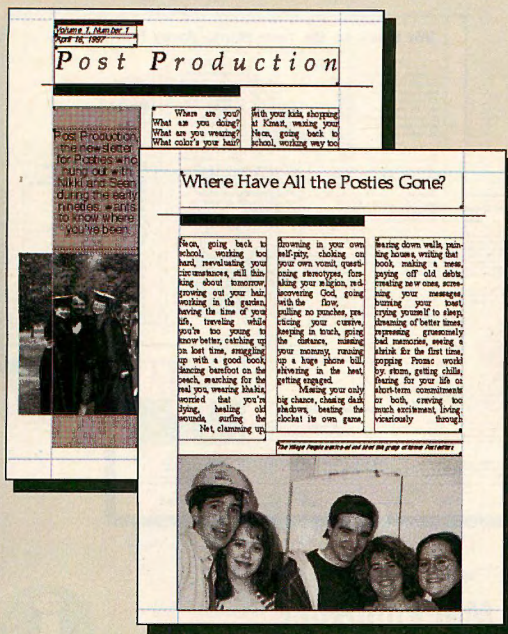
## Cheap Tips

1. Keep newsletters short. There are no 10-page templates for a reason.
2. Be prepared. Before you design your newsletter, have all your photos scanned, text edited, and captions written.
3. Use pullquotes that grab attention, or don't use them at all. If your readers snooze, you lose.
4. Don't use too many fonts. Your newsletter will look cluttered.
5. If you use photos, make sure that the people or animals in them are facing into the page. If your subjects look off the page, so will your readers.

If you're looking for beary special borders and birthday cake backgrounds, you're in the wrong program. Although Adobe HomePublisher Deluxe provides more than 50 templates for 13 different projects, it's meant for novice designers, not the kiddie crowd. For example, clicking on a graphics box in a template does not automatically call up a cheesy selection of art—you'll need to import your own cheesy art or dive into the clip-art images found on an included CD.

But, as with most of the other budget design kits, you *can* work from a template or not. If you select the template, simply place your graphics and text in the template preview, fill in the blanks to add headlines and captions, and the program will lay it all out for you.

Sure, the program has faults. When we tried to add text to our newsletter by clicking Import Text, the program would recognize only graphics files. Also, the program's clunky editing tools made it difficult to move objects with precision. Still, among the programs we reviewed, Adobe HomePublisher Deluxe offers the easiest route to making professional-looking print projects.



## Adobe HomePublisher Deluxe

**Company:** Adobe

**Price:** \$49 (street)

**Contact:** 800-888-6293, <http://www.adobe.com>

**Requirements:** 2X CD-ROM, 68030 or faster, System 7.0 or later, 8MB of RAM, printer

**Projects:** 13

**Brochure, business card, calendar, certificate, envelope, fax sheet, flyer, greeting card, invoice, label, letterhead, memo, newsletter**

**Clip-art images:** More than 2,000

**Fonts:** 12

**Best feature:** Fill-in-the-blank templates do the work.

**Worst feature:** Skimpy collection of fonts

**Bonus feature:** Specialty paper included

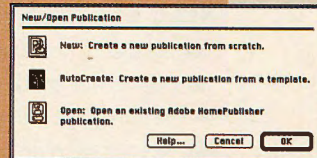
**Gratuitous flamenco dancer clip art:** No



## Build Your Own Newsletter

### Step 1.

Select New from the File menu and choose Auto-



Create to get to the newsletter templates.

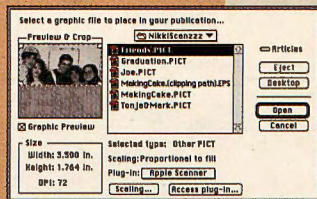
### Step 2.

Click the newsletter icon, then click the style of newsletter you want to create. Place the text and graphic elements onto your newsletter by clicking the appropriate boxes in the preview window and then selecting either Place Text or Place Graphic.



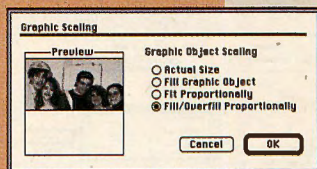
### Step 3.

While in the Place Graphic dialog box, you can preview graphics and crop them.



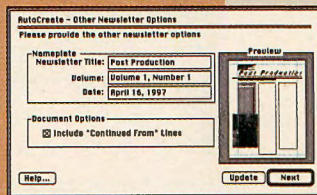
### Step 4.

Before clicking Open to place the graphic, click the Scaling tab to select a scaling option. If you choose Fill/Overfill Proportionally, the program will resize the graphic to fit the object box with minimal distortion.



### Step 5.

Enter the title of your newsletter, the volume and issue numbers, and the date in the dialog box. Subsequent dialog boxes ask you for captions and headlines. After the last dialog box, click Done, and the program will lay out the entire newsletter for you.



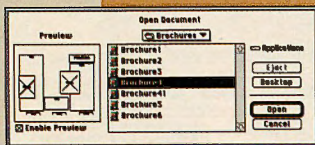
### Step 6.

Tweak fonts, spacing, graphics placement, and line placement until your newsletter looks perfect.

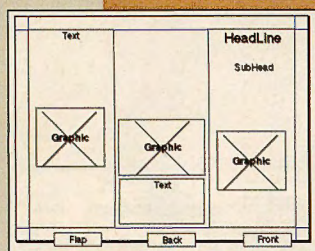


## Build Your Own Brochure

**Step 1.** Select Open, not New, from the File menu, and double-click Design Templates. Activate Enable Preview to sneak a peek at the templates before setting your heart on one.

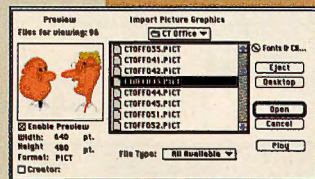


**Step 2.** Double-click Brochures, select the template you want to work with, and click Open to access it.



Box Information dialog. Deselect the Locked box to make your object movable. If you're working with graphics, select Scale with Box to make sure that imported graphics will fit their spaces on the template.

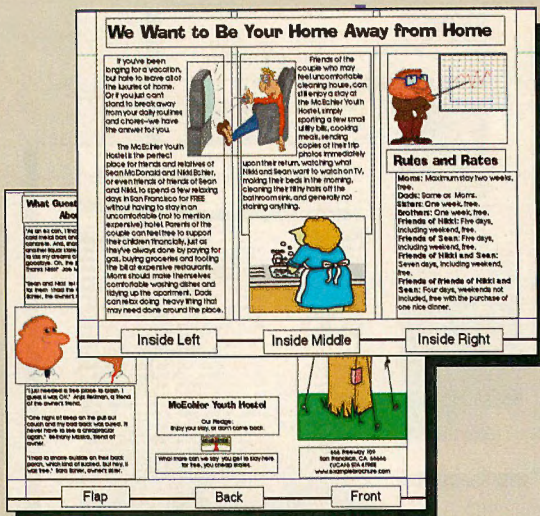
**Step 4.** Import a graphic by selecting the object box where you want it to go, then selecting Import Graphics from the File menu. Make sure you have the MacPublisher Fonts and Clip Art CD loaded



to access the clip art that's included.

**Step 5.** Add body text by clicking the area of the template labeled Text, select the Text tool from the floating tool palette, and start typing.

**Step 6.** To make text wrap around images, select the image, then choose Text Runaround from the Object menu. If you see only part of the image on your screen, select the image, then choose Bring to Front from the Object menu.



## MacPublisher

**Company:** MacSoft

**Price:** \$29.99 (SRP)

**Contact:** 800-229-2714,

<http://www.wizworks.com/macsoft>

**Requirements:** 2X CD-ROM, 68030 or faster, System 7.0 or later, 4MB of RAM

**Projects:** 12

**Brochure, business card, certificate, envelope, flyer, fax sheet, greeting card, invitation, invoice, memo, letterhead, newsletter**

**Clip-art images:** 1,000 color images

**Fonts:** 40

**Best feature:** Brochure template shows labels for each panel, so you always know where you are.

**Worst feature:** Unorganized Help menu is no help.

**Bonus feature:** You rarely need to use the Help menu.

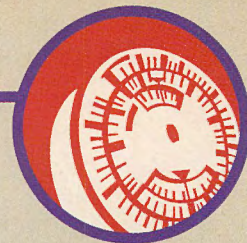
**Gratis flamenço dancer clip art:** No

**S**hort of using pen and paper, you won't find a more bare-bones desktop publishing kit than MacPublisher—you get a template, some fonts, some clip art, and that's it. *You* have to choose your fonts. *You* have to place your text. *You* have to crop your photos before importing them.

And that's all fine. None of those decisions is terribly difficult—most of them are choices you'd want to make anyway. But the program has other drawbacks. It crashes—a lot, especially when importing photos. And the Help menu is not organized alphabetically, chronologically, categorically, or humanely—you'll go nuts if you need assistance.

If you use MacPublisher because it came free with your Power Mac, be prepared to waste a lot of time restarting your project *and* your machine. We worked through multiple versions of our brochure simply because when the program crashed our Mac, it often corrupted all the saved brochure files, forcing us to start over from scratch. But we don't sound bitter, do we? ▀

Frugal Associate Editor Nikki Echler firmly believes that money *can* buy happiness—and shoes and sweets....



## Cheap Tips

1. Place your headline in the upper third of the front flap so it will still be visible when your brochure is stacked behind others.
2. Push your product. Use the front flap to show who, what, and where you are. The inside flaps should tell people why they should care.
3. Keep your eye on your flaps. Your document will look different when it's all folded up, so remember which flap you're working on.
4. Color costs—a lot, so before you go all out with bold color photos or bright illustrations, call your local Kinko's to find out if you can afford it.
5. Print a sample to make sure you have the spacing right when everything is folded.







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# This Old Mac:

old mac

# LC 475, 500 Series, and 630

By T. Kelley Boylan

Photo by John Greenleigh, Courtesy of Apple Computer, Inc.



Last month, we covered the LC, LC II, and LC III series, so now we're going to help you upgrade the other models in the LC line (and comparable Performas). We'll cover the LC 475, 520, 550, 575, 580, 630, and of course, the 630 DOS Compatible. Although there's life in the LC line, don't spend more than two or three hundred dollars upgrading. If you have that much cash to burn, put it in the bank for a newer, faster machine. We'll cover each model in detail, but first let's look at the items that stay the same no matter which model you own.

## General Expansion



SEE OUR  
WEB SITE for  
previous  
"This Old  
Mac" articles.



Every LC has an LC slot (often called a PDS), into which you can plug a network card, accelerator, or video card. Not every model has the same size or type of LC slot, however, so tell the vendor which LC you have. No LCs have a NuBus or PCI slot.

All LCs have external SCSI connectors, so you can just plug in a CD-ROM drive, extra hard drive, scanner, or other SCSI peripheral. At most, you might have to buy driver

software such as CharisMac Engineering's CD Anubis (916-885-4420, <http://www.charismac.com>) or FWB Software's CD-ROM Toolkit (415-463-3500, <http://www.fwb.com>.)

Not all LCs have internal SCSI drives, though. From the LC 580 on, they have IDE drives, and that means you can't use old versions of CD-ROM Toolkit, CD Anubis, Apple's HD SC, or other drive-formatting software. Be sure to get the latest release, partly for the IDE drive but also because newer System software requires it.

**Networking** All LCs have built-in AppleTalk. None has built-in Ethernet. To add Ethernet, you have two choices, both of which leave your LC slot free. One choice is to use an external box such as Asanté Technologies' Slotless Macintosh Ethernet Adapter, which connects to your Mac via the SCSI port. Alternately, you can buy a card to put into the LC's special communications slot. The comm slot is found in only a few Macs—for example, the LC 575, 580, 630, and some entry-level Power Macs and PowerPC-based



Performas. Farallon Communications makes three different sub-\$100 models of Ethernet card for LCs.

**Utilities** Symantec's Norton Utilities 3.2.x runs fine on all LCs (800-441-7234, <http://www.symantec.com>). You should use Norton Utilities to keep your drive defragmented and error free. To back up your hard drive, we suggest Retrospect from Dantz Development (510-253-3000, <http://www.dantz.com>). All but two of the LCs in this article use 68LC040 or faster processors, so almost any utility package will run. Be sure the tools you choose aren't PowerPC-only.

All these LCs can run System 7.6.1. Thus, they can connect to the Internet with standard tools and applications. At press time, Apple was saying that any Mac with an '040 processor would run Mac OS 8.

**Accelerators** A vast array of accelerators is available, but don't spend a vast array of dollars on one. If you have that much to spare, buy a new Mac. If you upgrade, contact the vendors listed for literature, and spend a day or two comparing features and prices. Then check with the used-hardware vendors about which discontinued or used products are in stock. Remember, used-hardware vendors usually do not have literature on individual products.

What should you look for in an accelerator? First, you'll want a card that includes a floating-point unit (FPU) if your LC lacks it. (See details on the individual LCs below.) Chips

with an "LC" designator in the middle—for example, 68LC040—do *not* include an FPU. With an FPU, the LC can do rendering and handle complex mathematical calculations.

If your Mac lacks an FPU and you can't find an affordable accelerator with one, you can use John Neil & Associates' SoftwareFPU, a shareware program that emulates a physical floating-point unit (800-663-2943, <http://www.jna.inter.net/jna/sfpu.html>). SoftwareFPU allows you to (slowly) run applications that require an FPU. But there's a catch—some 68LC040 CPUs have a bug that keeps SoftwareFPU from working with all applications.

One way to find out if your LC has this bug is to test it with the applications you want to use. If they work, all's well. If one crashes, the bug found you. Don't give up hope. If you can, try the application on a standard '040 Mac. If the application works, it's the bug. If not, the application may be corrupt and the LC is fine. Or you can check to see if you have one of the older, buggy chips. Pop open your Mac's case and look on the '040 chip. If you see a revision number of 03E23G or higher—it's the second line of info on the chip—you've got a buggy one.

Finally, look for an accelerator with RAM expansion slots. The secret to a happy life in computing is RAM, RAM, and more RAM. These Macs all hold at least 36MB, which generally is enough for basic computing tasks.

However, do you want to render large images? Buy more RAM. Want to run Adobe Photoshop? Buy more RAM. You get the idea.

**Assault of Batteries** The LC series (and most other Macs) have a battery built into the motherboard. It remembers your color settings, the printer you've selected, the current time, and so on. Everything that's in parameter RAM (PRAM) stays alive because the battery keeps it alive. If the battery dies, the machine loses its mind. Freaks. It may not boot properly, may forget which port to print to, may not recognize the network, may start up in black and white. Running Norton Utilities won't fix it. Reformatting won't fix it. Reinstalling System software won't fix it.

What will fix it? A new battery. Radio Shack carries them for less than \$10. Just bring in the old battery to be sure you get the right one. Or call Apple (800-767-2775) and ask for part number 742-0011. Want to know what it looks like? Go to <http://www.mdsbattery.co.uk>, the site for MDS's catalog—it includes a photo.

If you're comfortable pulling your Mac's cover off, you can swap batteries yourself; it's no harder than changing the batteries in a remote control. Locating the battery slot on the motherboard may take a while, but once you find it (it looks like a AAA battery but about half the length), pop out the old battery, snap in the new one, and reset all your PRAM settings.

## The Lineup



**LC 475**  
(equivalent  
Macs include  
the Performa  
475 and 476

and the Quadra 605)

- Includes a 68LC040 processor running at 25MHz
- No FPU
- 4MB of DRAM, upgradable to 36MB via one RAM slot
- One LC slot
- 512K VRAM, which supports a resolution of 640 x 480 pixels in 8-bit color; VRAM is expandable to 1MB.

Apple gave us yet another RAM oddity in the LC 475. When adding

more RAM, be sure to buy *single-sided* SIMMs, which have chips on only one side. Most double-sided SIMMs—that is, SIMMs with chips on both sides—won't fit in the RAM expansion slot.

Because the LC 475 uses an '040 processor, you can run any System software, productivity software, and games that aren't PowerPC only. Note, however, that the processor does not include an FPU, so some 3D, mathematical, and scientific applications may not run.

Want a more powerful processor? Get an accelerator. You may be able to find a good deal from a used-hardware vendor on DayStar

Digital's now-discontinued PowerCard 601. This card includes a PowerPC 601 processor as well as 256K of cache. (A cache makes a processor run even faster.)

**LC 520 and 550**  
(equivalent Macs include the Performa 550 and 560)

- Includes a 68030 processor running at 25MHz or 33MHz
- Optional FPU
- 4MB of DRAM, upgradable to 36MB via one RAM slot
- One LC slot
- 512K VRAM, which supports a resolution of 640 x 480 pixels in 8-bit color; VRAM is expandable to 768K.

## Hardware Sources

DayStar Digital  
770-967-2077  
<http://www.daystar.com>

Extreme Systems  
Available through Pacific Mac  
800-622-6261  
<http://www.pacificmac.com>

MacGalaxy  
608-238-0606  
<http://www.macgalaxy.com/pages/store/hardware/boards.html>

MicroMac Technology  
800-600-6227  
<http://www.micromac.com>

Sonnet Technologies  
800-786-6260  
<http://www.sonnettech.com>

Ask about Dove, NewLife, and Novy Systems when you call used-hardware vendors (see page 52 for contact information). They've either stopped making accelerators or are out of business, but their products still are available.

**Video**  
Griffin Technology  
615-255-0990  
<http://www.nashville.net/~griffin>

RasterOps  
800-729-2656  
<http://www.rasterops.com>

Sony Electronics  
800-352-7669  
<http://www.sony.com>

**Networking**  
Asanté Technologies  
800-662-9686  
<http://www.asante.com>

Farallon Communications  
510-814-5000  
<http://www.farallon.com>



## More Sources for Old Macs

- In your favorite search engine, search for "used mac"
- Subscribe to the newsgroup comp.sys.mac.forsale
- Look in local newsgroups; for example, yourcity.forsale
- Peruse the phone book under "Computers, Used"
- Watch the newspaper's for-sale section
- Ask around. You may be surprised by how many people have old computers stashed in the closet that they'll just give away.

## Used-hardware Sources

Contact several vendors. Ask about warranties and return policies. This list isn't exhaustive but is a good place to start.

**The Computer Exchange**  
800-304-4639  
<http://www.compexch.com>

**DataTech Remarketing**  
800-281-3661  
<http://www.datatech-rmkt.com>

**GE Capital Electronics Services**  
800-722-7719  
<http://www.ge.com/capital/commequip/es>

**Hawke Business Systems**  
800-875-2610

**Mac • Res • Q**  
888-44-RESCUE  
<http://www.macresq.com>

**Mac Sale International**  
800-729-7031  
<http://www.macsaleint.com>

**Pre-Owned Electronics**  
800-274-5343

**Shreve Systems**  
800-227-3971  
<http://www.shrevesystems.com>

**Sun Remarketing**  
800-821-3221  
<http://www.sunrem.com/sunrem>

The LC 520 and 550 really are the same Mac, only running at different processor speeds—25MHz and 33MHz. (As you probably guessed, the LC 550 runs slightly faster than the LC 520.) These two Macs sport an all-in-one design: an integrated monitor and CPU, à la the classic Mac. Other than that, these LCs are perfectly ordinary '030 machines.

Well, almost ordinary. A few of the LC 520s shipped with sickly System software CDs—specifically, there was bad information in the CD's boot blocks. If you have the original LC 520 System CD and find yourself staring at a gray screen with nothing but a pointer on it, you own a bad CD. The fix is a new System software CD; get 7.6.1.

As for accelerators, there's not much to be done. These models were manufactured and sold for only a short while, and we couldn't find any accelerators for them.

**LC 575 and 580**  
(equivalent Macs include the Performa 575, 578, and 580)

- Includes a 68LC040 processor running at 33MHz
- No FPU
- 4MB of DRAM, expandable to 36MB via one RAM slot (the LC 580 has 8MB of DRAM, expandable to 52MB via two slots)
- One LC slot
- One communications slot
- 512K VRAM, which supports a resolution of 640 x 480 pixels in 16-bit color; VRAM is expandable to 1MB DRAM for the 580.

The LC 575 and 580 carried on the tradition of the LC 520's all-in-one design, but the LC 580 offered three technological advantages. First, the LC 580 included an internal IDE hard drive rather than the familiar internal SCSI hard drive. Second, it had a maximum RAM capacity of 52MB. And third, it included video-in and -out ports for connecting video peripherals such as camcorders and VCRs.

**LC 630 and 630 DOS Compatible**

(equivalent Macs include the Performa 630 through 638, the Performa 640 DOS Compatible, and the Quadra 630)

- Includes a 68LC040 processor running at 33MHz

- No FPU
- 8MB of DRAM, expandable to 36MB via one RAM slot
- One LC slot
- One communications slot
- One video slot for television output
- 1MB DRAM, which supports a resolution of 640 x 480 pixels in 16-bit color

The DOS compatibility cards included in one version of the LC 630 weren't blindingly fast, and Apple didn't make a lot of them, but they worked. There are plenty of upgrades available for this Mac overall. Besides the comm slot, the LC 630 has a video slot for NTSC, PAL, and SECAM video-input cards. If you can find a used one, you can add Apple's Presentation System, which handles NTSC or PAL video output, so you can display images on a TV. Ever wanted to show off your Doom-playing skills to all your non-computer-savvy friends? Just tape the game!

The Performa 640 DOS Compatible includes everything that the LC 630 DOS Compatible does, except it has an internal IDE drive instead of a SCSI drive, and it handles a maximum of 53MB of RAM.

## Glossary

**Color and Resolution** These arcane numbers tell you how many colors a Mac can display on a given monitor.

### Color

- 1-bit means black and white
- 2-bit means 4 colors
- 4-bit means 16 colors
- 8-bit means 256 colors (the minimum for most games and image tools)
- 16-bit means thousands of colors (QuickTime is optimized for 16-bit color)
- 24-bit means millions of colors (best for graphics professionals)

### Resolution

- For WYSIWYG images:
- 640 x 480 pixels is the standard resolution for a 14-inch monitor
- 832 x 624 is the standard for a 16-inch monitor
- 1,024 x 768 is the standard for a 19-inch monitor
- 1,152 x 870 is the standard for a 21-inch monitor

Depending on your setup, it's possible to run a 14-inch monitor at 832 x 624 or higher or a 16-inch monitor at 640 x 480.

**32-Bit Clean** Some early Macs could "see" only 8MB of RAM. To access extra RAM, you need either Apple's 32-bit System Enabler or Connectix Mode32 (800-950-5880, <http://www.connectix.com>).

**DRAM: Dynamic RAM** The kind of memory that goes on the motherboard and lets you run applications and open large files. The more RAM you have, the more applications you can have open at once. More RAM also lets you open larger image files.

**FPU: Floating-point Unit** A piece of hardware on either the processor or the motherboard that does floating-point calculations. Some applications—notably 3D and scientific applications—require it. SoftwareFPU shareware by John Neil & Associates (800-663-2943, <http://www.jna.inter.net/jna/sfpu.html>) emulates a real FPU.

**LC** LC stands for "low cost." These Macs represented a breakthrough back in the days when Macs commanded a premium price tag.

**LC Slot:** A slot similar to the PDS in the Mac IIx and SE/30 but smaller.

**MHz: Megahertz** The speed at which a processor runs. Bigger numbers mean faster machines.

**NTSC** The video standard used in the United States for television.

**PAL** A television video standard, used mostly in Europe.

**PDS: Processor Direct Slot** A slot found on the original LC that connects directly to the processor. It's faster than a NuBus slot, but fewer cards were made for it.

**SECAM** A television video standard, used mostly in Europe.

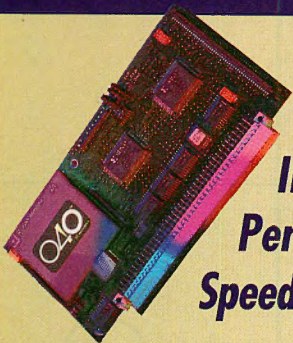
**VRAM: Video RAM** To display more colors on a bigger monitor, you need more VRAM. For example, to display millions of colors on a 19-inch monitor, you need at least 2MB of VRAM.

**WYSIWYG: What You See Is What You Get** WYSIWYG means an image looks the same onscreen as it does when printed on paper. ■

T. Kelley Boylan has co-authored several books and articles and is a Mac administrator when he's not writing. He owns and uses Macs exclusively.



# Run Your Mac Faster and Save!



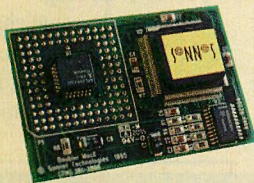
## Accelerate Mac LC, LC II, Color Classic, IIfx, IIsi, IIfx, or Performa 600 to '040 Speed Starting at \$199

Sonnet Presto™ LC 040 50/25 MHz accelerators increase Mac LC, LC II or Color Classic performance 470% as fast as a stock machine (processor performance, MacBench2). Use RAMDoubler or Virtual Memory to break the 10MB barrier with the Presto LC (except Mac LC, OS 7.1+ req'd). The Presto LC is only \$199, or with hardware Floating Point Unit (FPU) \$249.

The 80/40MHz version for the Mac IIsi\*, IIfx, IIfx, or Performa 600 increases processor performance by 250-500%. The 80/40 MHz Presto at only \$299 includes a 128K level 2 cache, or \$399 with FPU.

All Prestos are 100% application software compatible and run through System 7.6. The Prestos are easy to install in the Macs' processor direct slot, and come with clear installation instructions. (\*Adapter req'd IIsi)

## Allegro's Fast 68030s Give New Life to Mac SE, II, IIfx, LC, LC II, Color Classic from \$99



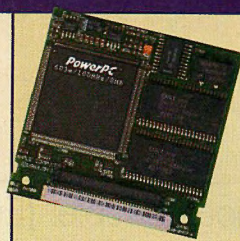
Give your older Mac more muscle. Sonnet Allegros™ are packed with features at bargain prices. The 33MHz Allegro LC for the Mac LC, LC II, Color Classic doubles your cpu speed, adds 16K level 2 cache and includes an FPU—all for only \$149. The 33MHz Allegro SE increases performance 460%, includes an FPU and 4 SIMM slots to expand memory up to 16MB for a bargain \$199. Allegro Mac II, IIfx models double '030 speed to 33MHz for a mere \$99.



## 7300-9600 Upgrade 150MHz 604 \$199\* 200MHz 604e \$699\* 233MHz 604e \$999\*

Give your Power Mac 7300, 7500, 7600, 8500, 8600, 9500, 9600 a PowerPC 604/604e upgrade. These power-packed upgrades are 100% compatible with your existing software and hardware. Just plug one in and enjoy the productivity you deserve. Add a 1MB cache card and double your performance! \*with card trade-in.

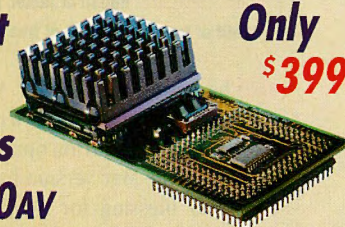
Wow! IMS Twin Turbo 4MB VRAM..... \$249



## Upgrade Your PowerBook 520/540 to 100MHz 603e with 8MB Memory for \$399\*

This is the genuine Apple Computer upgrade designed to bring your trusted PowerBook 520/540 into the PowerPC generation with a speedy 100MHz 603e PowerPC processor. With this upgrade you can run all native PowerPC applications. Upgrade your reliable ethernet-equipped PowerBook to PowerPC, and prepare for the MacOS future. The upgrade includes 8MB of memory and is compatible with your existing RAM expansion board. \*Price after a \$100 discount for trade-in of existing 68LC040 card.

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PowerMac with 1MB cache runs twice as fast as cache-less (200MHz 604e, MacBench 4). We build 'em. Resellers call for volume pricing.



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512K	7200/7300/7500/7600/8500/8600	\$89
1M	7200/7300/7500/7600/8500/8600	\$159
256K	5200/6360/5400/5500/6400/6500	\$79
512K	5200/6360/5400/5500/6400/6500	\$149
1M	5200/6360/5400/5500/6400/6500	\$199

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# reviews

Serious reviews for serious people. (Enough already! Isn't it summer yet?)

## Adobe Illustrator 7.0



FREAKIN'  
AWESOME



SPIFFY



YEA,  
WHATEVER



BLECH!

**COMPANY:** Adobe

**CONTACT:** 800-833-6687, <http://www.adobe.com>

**PRICE:** \$595 (SRP), \$99 upgrade for registered users

**REQUIREMENTS:** 68030 or faster, 8MB of free RAM (recommended: PowerPC, 32MB of free RAM, 25MB of free hard disk space)

The newest upgrade for Adobe Illustrator, version 7.0, is just like Christmas—for Windows users. For them, Illustrator 7.0 offers a cornucopia of gifts—filters, layers, gradients—everything the Mac version has had since 5.0. (This feature parity is a real blessing for people who work in a mixed-platform environment.) The new Macintosh features in Illustrator 7.0 consist mainly of interface changes and production-oriented additions. Some of these features are nice, but discovering them is sort of like finding out that the only gifts under the tree are underwear and a sweater from Aunt Sylvia.

Hold the cursor over a tool, and Hot Help will identify it.

The Tools palette is reorganized, and keyboard shortcuts are different. The Fill and Stroke window now is part of the palette.

These two collapsed palettes show how "tabs" (such as Align or Character) can be dragged and recombined in one palette.

The Transform palette gives new and precise control over moving objects in a document.

### New Interface

Since Adobe's release of Photoshop 4.0, and continuing with PageMaker 6.5 and Illustrator 7.0, the company has given all its programs one coherent interface. This continuity is supposed to help people who work in all three applications and to offer longtime Photoshop users a more welcoming environment. Even Illustrator die-hards will appreciate some aspects of the overhaul. For example, Illustrator 7.0 assigns key-strokes for all its toolbox entries. Just tapping P-M-V-R switches from Pen to Rectangle to Selection to Rotate. It's a big timesaver we've been missing.

Conversely, some changes will unnerve Illustrator users. Why is the Rectangle tool the M key? Well, Photoshop's Rectangle tool is M, for Marquee. But unlike Photoshop, in which the Oval and Rectangle Marquees toggle, Illustrator has two distinct tools,

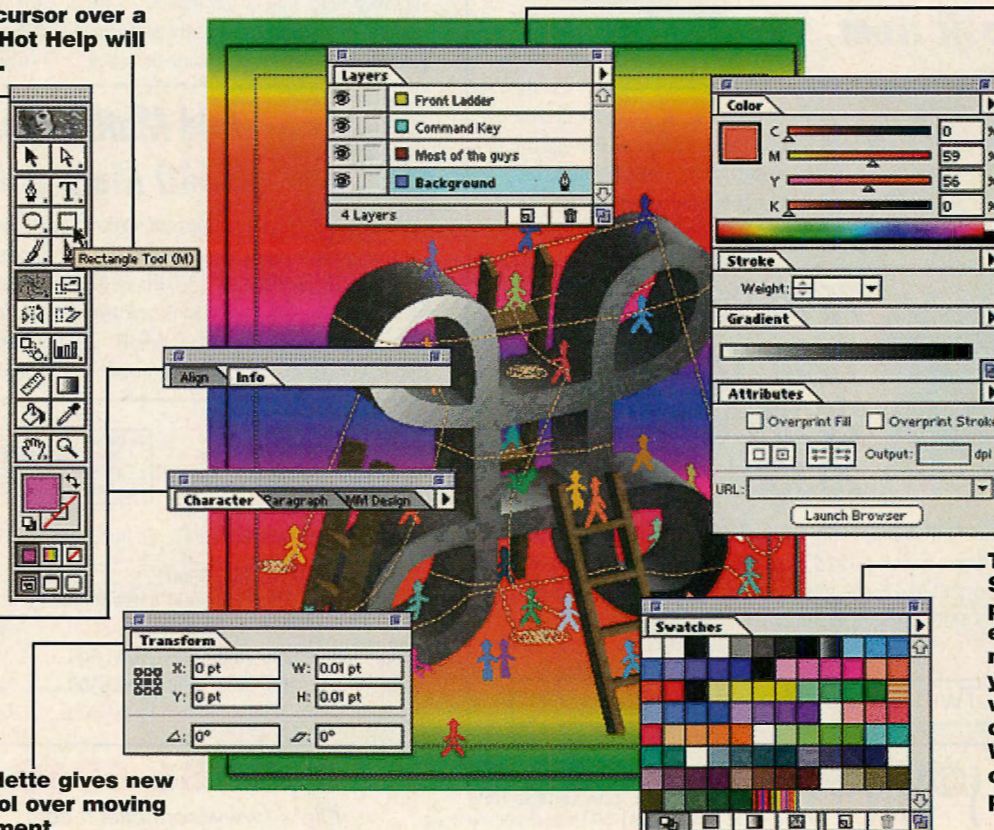


FIND A TRIAL  
VERSION OF  
Illustrator 7.0  
on The Disc.

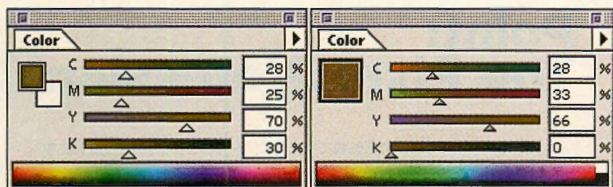
The  
Layers  
palette  
has a  
Photo-  
shop  
look.

These  
palettes  
are  
"docked"—they  
can be  
moved  
and/or  
collapsed  
together.

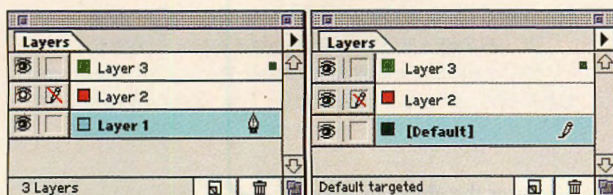
The new  
Swatches  
palette is  
extra useful  
now that  
you can  
work in RGB  
colors and a  
Web-specific  
color  
palette.







ALTHOUGH THE COLOR PALETTES for Photoshop (left) and Illustrator (right) look almost identical, Illustrator's is missing two very important controls. There's no way to change the focus from Fill to Stroke and no place to set a fill of None. You must change those two settings via the toolbox or the keyboard.



WHICH LAYERS PALETTE is for Illustrator and which for PageMaker? The Illustrator palette is on the left. The clues are Illustrator's hollowed eyeball indicating the artwork mode and PageMaker's layer called Default. Also, Illustrator uses a pen to indicate the active layer. PageMaker uses a pencil.

and the Oval tool is N. Why not O? Because O invokes the Reflect tool. I'm sure there's a logic in here someplace. It's just a little hard to understand. Also, important commands, such as Add Anchor Points or Offset Path, have moved off the Filter menu, and there's no way to reapply the commands via a keystroke. On top of this, there are inconsistencies in the commands that will bother even those who come from Photoshop. Select Inverse has a keystroke command in Photoshop but not in Illustrator. Select None is Command-D in Photoshop but Command-Shift-A in Illustrator.

Also, there are some Photoshop features we would have loved to see but didn't, such as the Actions palette, incremental magnification amounts, and the new Navigator palette. And Adobe made one big goof in version 7.0: its handling of the None fill. Setting a fill of None is one of the most important things you would want to do in Illustrator. But in its zeal to make the Colors palette similar to Photoshop's, Adobe dropped the None option; it also failed to add a None option to the new Swatches palette. The only way to specify using no fill in an object is by clicking in the toolbox or by pressing the slash key. One word: bad.

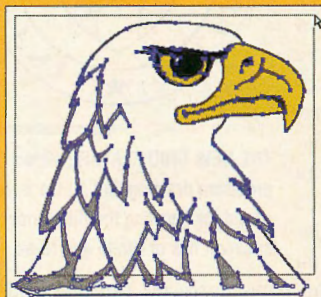
## A New World of Images and Color

Working with images and color is much improved, finally. Adobe did a lot to fix version 6's disastrous handling of embedded TIFF images. Now, when you place TIFFs, you have an option to turn on or off linking. However, once you place a file, it's not easy to change it from linked to unlinked, especially if you applied any transformations. Fortunately, placing a TIFF image no longer means that Illustrator's screen redraw grinds to a halt, as so often happened in Illustrator 6.

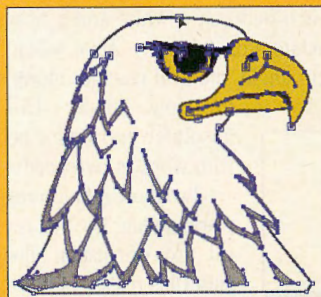
Finally, RGB color (and Apple ColorSync 2.0) comes to Illustrator! This is a godsend for anyone who works in something other than a prepress environment. Whatever your favorite color model—CMYK, RGB, HLS, or grayscale—Illustrator 7.0 lets you choose it, unlike Illustrator 6, with its CMYK-only stance. You even can use a 216-color browser-safe palette. Also, Web designers now have the ability to turn their Illustrator artwork into image

## RESHAPING AN EAGLE

Illustrator 7.0 includes only one new feature for creating artwork: the Reshape tool. This tool is not as easy, nor as intuitive, as you might want it to be. There are three steps for working with the Reshape tool.



**STEP 1:** Use the Direct Selection tool to select points in the object that may or may not move. Some points should be left unselected to serve as "anchors" that will not move.



**STEP 2:** Use the Reshape tool to superselect points that will "pull" the points previously selected. These superselected points then will be indicated with a square around their dot.



**STEP 3:** Use the Reshape tool to drag one of the superselected points. This action distorts the original object. Superselected points distort an object only if at least one point is deselected. If an object contains no deselected points, the Reshape tool moves the object without distorting it. If an object contains no superselected points, then dragging with the Reshape tool neither moves nor distorts the object.



**THE DIFFERENCE BETWEEN using the Reshape tool and the Scale tool:** When the original eagle (left) was made taller using the Scale tool (middle), the head and beak became distorted. Using the Reshape tool (right) scales the eagle without distorting the head.



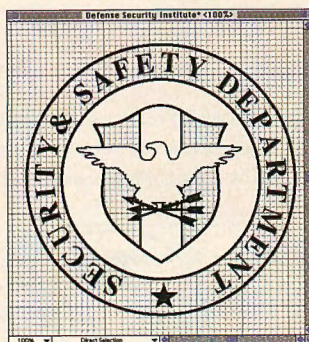
maps with embedded URLs; currently they're limited, however, to specifying rectangular areas (a third-party application still is needed to make circles or irregular shapes).

### Grids and Other Goodies

Illustrator 7.0 ships with a terrific new system of automatic grids, which you may set up in any color or configuration. Not only can you work with Snap to Grid turned on, but also the grid provides feedback, which helps you

make compound paths correctly. (Anyone who has ever thrown a gradient behind an object in order to tell the difference between a White and a None fill will appreciate this feature.) Also, when you constrain angle, the grid changes along with the new angle. This is absolutely terrific for people who work in perspective.

**THE NEW GRID FEATURE allows for precision drawing, but it also is very useful for showing the difference between fills of White and None.**



**HOLD THE CONTROL KEY and click the mouse to bring up context-sensitive menus with specific commands for the type of object selected. It's like clicking the right-hand mouse button in Windows 95.**

Two more new features are worth noting. The first is vertical text orientation along a path (this release of Illustrator supports the Latin alphabet and Japanese characters only—other two-byte languages will be supported in future updates). The second is the ability to embed fonts in a document. This means you can send an Illustrator file to any machine, on any platform, and it will print correctly even if the fonts are not on the second machine. (You won't be able to manipulate the document on the second machine if the fonts are missing, though.)

Directly from the PC world, Illustrator 7.0 gives

## Counterpoint: The Vector Veteran

The interface changes took a long time to learn. For example, it took me 15 minutes to figure out where Adobe had moved the Pathfinder filters. I don't get why the Rectangle tool is the letter *M*, the keystrokes for Move to Front and Send to Back changed, and there are no keyboard shortcuts for some of my favorite commands, such as repeat Add Anchor Points. And why does the old Ungroup command (Command-U) now hide objects?

There also are some strange omissions. Now I've got to use three different palettes just to set a stroke to a certain color and overprint. I can't make tints of process colors, and the new Gradient palette has got me stumped. I can't figure out how to add or change the colors.

However, not being stuck in CMYK is great, as are the grids. I don't have to go into Photoshop anymore just to create a Web graphic.

## Point: The Pixel Professional

I recognize tools and keystrokes from Photoshop, such as the *M* for the Marquee in Photoshop and the Rectangle in Illustrator. And now I don't have to hunt for the Hide Edges keystroke, because that's the same, too.

This will make Web work a lot easier. I finally can match RGB colors in Photoshop and Illustrator, and then work in a Web color palette. Also, I can drag and drop paths right from Illustrator into Photoshop.

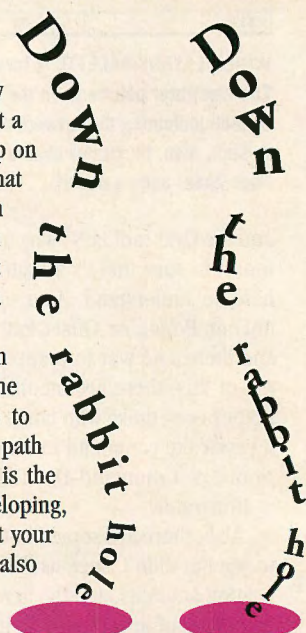
Those tabbed palettes work exactly like the ones in Photoshop. And these docking palettes are even cooler than in Photoshop.

Too bad there's no Actions or Navigator palette in Illustrator.

The Fill and Stroke features are still so different from what I'm used to in Photoshop that putting them in the Tools palette is confusing.

the Mac user the ability to simulate the function of the right-hand mouse button. Hold the Control key and click on an object, and you get a context-sensitive menu that pops up on the screen, showing commands that apply to the selected object. Given that so many commands have been buried in submenus or have lost their keystrokes, this provides a little bit of relief.

As far as new art-creation features, version 7.0 offers only the Reshape tool, which allows users to transform the overall shape of a path while maintaining its details. This is the closest thing Illustrator has to enveloping, though it takes a lot of work to get your result precisely right. This tool also requires laborious selecting and deselecting of points. (See "Reshaping an Eagle," on previous page.)



**A NEW CHOICE for text orientation: Try Horizontal and Vertical Text for fun effects.**

### We Need a Little Christmas

Illustrator undoubtedly is one of the best applications for creating and editing vector-based graphics, and this upgrade does nothing to change that. Version 7.0 offers an easier entry for people who are coming to Illustrator from Photoshop, and the new cross-platform feature and interface parities are terrific for those who work in a mixed-platform environment. However, longtime Illustrator users will be frustrated with the new interface's steep relearning curve and its marginal long-term benefits. Also, although the new color and automatic grid features are definitely welcome, we were left thinking, "That's it?" Not to be greedy, Santa, but as a full-number upgrade, this is a miserly holiday. —Santee Cohen

**GOOD NEWS:** RGB color and URL image mapping. New, sophisticated grids. A total revision in the interface and menus to make it more like Photoshop and PageMaker.

**BAD NEWS:** A total revision in the interface and menus means a steep relearning curve for current users. Weak and feature-poor for a full-number upgrade.





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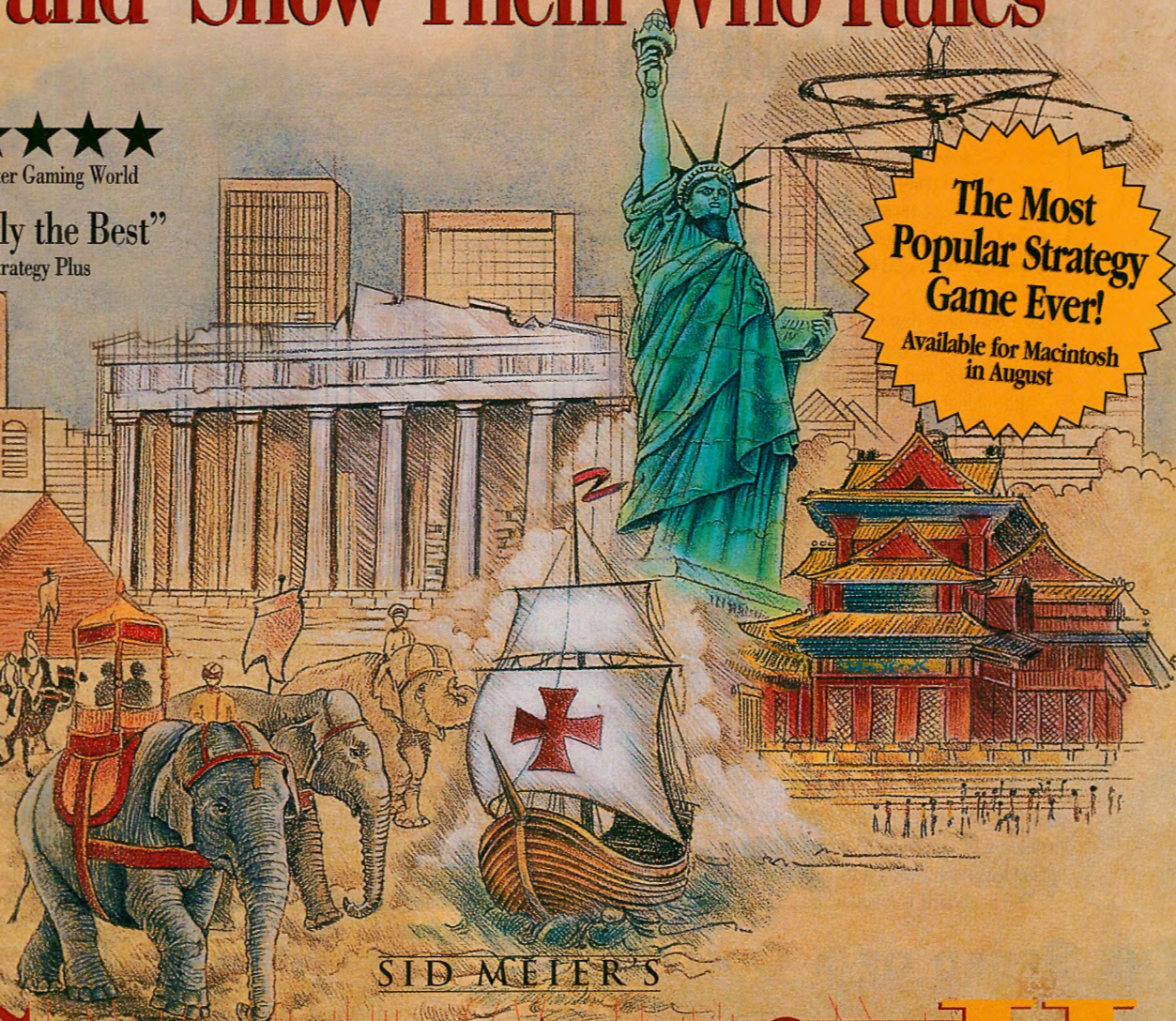


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System Requirements: Any 68040 or higher Macintosh with at least 8MB RAM, color monitor and CD-ROM drive. Also accelerated for Power Macintosh.

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# reviews

## PowerBook 2400c

**COMPANY:** Apple

**CONTACT:** 408-996-1010, <http://www.apple.com>

**PRICE:** \$3,499 (SRP)

**SPECIFICATIONS:** 180MHz 603e; 16MB of RAM; 1.3GB hard drive; 256K Level 2 cache; 10.4-inch, 800-x-600, active-matrix color display; two Type II or one Type III PC card slots

It's a cute little thing. With its small case and external floppy drive, this lightweight (just over four pounds) captured our hearts; the clear display and speedy performance won our admiration.

Although the 2400c is small, it's strong. At its heart is a 603e processor running at 180MHz, 256K of Level 2 cache, and the same architecture as in the PowerBook 3400 series. All this raw power shows—our tests clocked the 2400c at around 70 percent the processor and graphics speed of the 200MHz 3400c. The 2400c feels fast and responsive, and it runs QuickTime movies at full screen with hardly a dropped frame.

Of course, Apple had to drop some things in order to cut the 2400c's weight to half that of its larger sibling. The internal 1.3GB hard drive is it for onboard media. The hot-swappable floppy drive is external, with a case that looks something like a whiskey flask. It connects to the back of the 2400c via a special floppy cable and port—something we haven't seen since Mac Plus days.

The 2400c doesn't include a CD-ROM, but it does sport a standard PowerBook SCSI port, so adding an external SCSI drive isn't a problem. We used a portable CD-ROM drive and didn't experience any problems. If you need to add a modem or Ethernet capabilities, just spring for a card, plug it in, and you're off.

The keyboard is smaller than a standard keyboard, but this was a



**SMALLER THAN ULYSSES:** The PowerBook 2400c makes more of less. That's the hot-swappable floppy drive on the right.

surprisingly small problem. Even with my meaty hands, I was able to touch-type at almost full speed within about 15 minutes. It has a few nice touches, such as a row of function keys up top, and an inverted-T arrangement for the cursor control keys, much like what you see on a standard Mac keyboard.

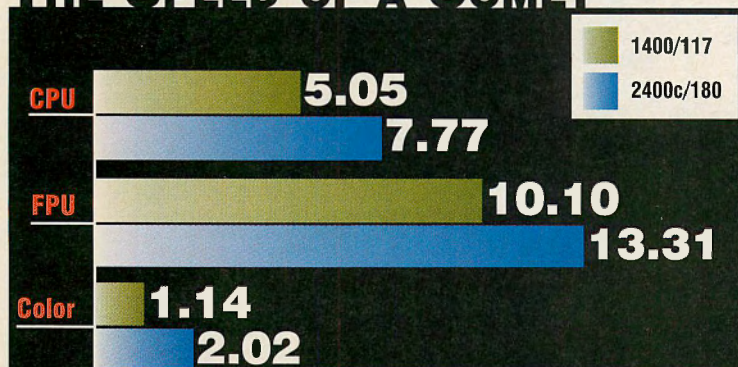
The industrial design of the 2400c is great, especially given the space constraints. Packed into the front of the PowerBook are brightness and volume controls, the keyboard, and a tap/double-tap/drag TrackPad. The rechargeable lithium-ion battery is good for two to four hours. Close the lid on the 2400c while it's on, and this Mac automatically goes to sleep, much like the 2400c's distant cousin, the IBM ThinkPad. Two quibbles with the lid latch placement: The TrackPad button has a concave curve to make room for the lid latch, right where it should be widest; it took several missed thumb presses to finally hit it. Also, the lid latch is sometimes difficult to open.

The rear panel houses the PC expansion slot, the IrDA port, the power supply port, and as an added nice touch, the ADB port. No more pulling down the rear door just to plug in a mouse. The SCSI port, an external monitor port (and just like the 3400, this works in only video mirror-only mode), the floppy drive port, and the serial port are also in the back, all behind a flip-down door. The only ports located on the side of the 2400c are the sound-in and sound-out ports.

Like its ancestor, the Duo, the 2400c uses a power supply that gives lots of power cord length without taking up more than one outlet on your power strip. Unlike the Duo, the 2400c has no docking capability.

The Apple/IBM partnership paid off on this one. (IBM manufactures the 2400c, and Apple contributes its unique style and software.) The PowerBook 2400c gives you lots of performance for your money without all the extras that weigh down—and jack up the price of—the PowerBook 3400. If you're looking for bells and whistles, look elsewhere. If, however, you just want the core of a portable Macintosh—and a fast, light one, at that—get the 2400c. —David Reynolds

## THE SPEED OF A COMET



Numbers are relative to a Quadra 650.

WE TESTED THE POWERBOOK 2400C/180 USING THE SHAREWARE benchmark program Speedometer 4.02. Tests were run at identical bit depths and resolutions, with a standard set of extensions. The CPU test is overall number-crunching speed; the FPU test measures basic floating-point unit, or FPU, capabilities (important for graphics performance); and the Color test tells how quickly the computer can draw to the screen.



**GOOD NEWS:** Bright display. Fast processor and architecture.

Light weight. Cute design (especially the external floppy drive).

**BAD NEWS:** Smaller than standard keyboard. Lid latch is hard to open.



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# reviews

## Two Terrific Towers

### PowerCenter Pro 210

**COMPANY:** Power Computing

**CONTACT:** 800-370-7693, <http://www.powercc.com>

**PRICE:** \$2,525 as tested (direct)

**SPECIFICATIONS:** 210MHz 604e, 32MB of RAM, 1MB Level 2 cache, 2GB hard drive, 16X CD-ROM drive, 2MB of VRAM, Ethernet

### Power Macintosh 9600/233

**COMPANY:** Apple

**CONTACT:** 408-996-1010, <http://www.apple.com>

**PRICE:** \$4,200 (SRP)

**SPECIFICATIONS:** 233MHz 604e, 32MB of RAM, 512K Level 2 cache, 4GB hard drive, 12X CD-ROM drive, Ethernet, 4MB IMS Twin Turbo graphics card

**W**e're at an odd point for the Mac, speedwise. Until the next generation of processor chips makes it into commercially available machines, the megahertz margin between top-of-the-line machines and those for regular Joes and Janes is decreasing. Tower cases in point: the PowerCenter Pro 210 and the Power Macintosh 9600/233. One is a down-and-dirty street racer, the other a refined sports car. Both are fast with impressive features. The question is, what kind of driver would need which machine?

Power Computing's PowerCenter Pro throws down a daunting gauntlet. For \$2,000 to \$3,000, depending on configuration, you get a 210MHz 604e processor, a 16X CD-ROM drive, built-in 3D acceleration from ATI Technologies, Ethernet, two expansion bays, 1MB of Level 2 cache, and three 12-inch PCI slots. For a few dollars more, you can upgrade the 2GB hard drive, the 16MB of RAM (our unit had 32MB), and the 2MB of VRAM. The PowerCenter Pro also has the Adaptec Power Domain SCSI card that could provide an Ultra-Fast and Wide data transfer rate of up to 40MB/sec. I say "could" because the IBM drive in the PowerCenter Pro supports only the Ultra-Fast and Narrow protocol, so you'll have to poke along at 20MB/sec. (for comparison: Normal Mac SCSI runs at 10MB/sec. internally and 5MB/sec. externally). Still, this leaves a port on the Adaptec card free for another drive, internal or external, that can run at the faster rate.

The specs of Apple's Power Macintosh 9600/233 are nothing to sneeze at, either. The processor is the fastest production model we've had in our hands yet: a 233MHz 604e. A 50MHz bus connects the chip to 512K of non-upgradable L2 cache, a 4GB Fast SCSI drive, a 12X CD-ROM drive, 32MB of RAM, six 12-inch PCI slots, three internal bays and four removable bays for expansion nirvana, built-in Ethernet, and a 4MB IMS Twin Turbo

**BEAUTY ISN'T SKIN DEEP:** The insides and overall industrial design (not to mention the expandability) of the Power Macintosh 9600/233 are the most alluring we've seen in any computer.

**BUILT FOR SPEED, NOT COMFORT:** Despite rough edges (inside and out), the PowerCenter Pro 210 is a fast value.

graphics board. As we noted in our review of the Power Mac 9600/200 (Jun/97, p56), the easy-open industrial design of this unit is a wonder. Pull off a side panel, lay it down, flip open two hinged pieces, and everything's easily accessible. In contrast, to open the PowerCenter Pro, you have to take off four screws and wrestle off a metal casing. Then the RAM (noninterleaved) is fairly accessible, but the PCI slots are difficult to reach. There are plenty of metal edges, and dealing with cables is a pain. Also, the PowerCenter Pro produces a noticeable amount of fan noise, whereas the 9600/233 was quieter than the monitor we attached to it.

Anyway, about speed. The PowerCenter Pro is, indeed, wicked fast. In some of our processor benchmark tests, it came within 15 percent of the Power Macintosh 9600/233's scores and actually beat the Power Macintosh 9600/200. This speed most likely is due to the PowerCenter Pro's 60MHz system bus—faster than any current Mac or other Mac clone—and 1MB of L2 cache, as opposed to the 9600/233's 512K. Also, the PowerCenter Pro comes with System 7.6.1 installed; the 9600/233 ships with System 7.5.5 installed, but a 7.6.1 upgrade disk is included. System 7.6 has more PowerPC-native code and offers a few performance boosts. Although the PowerCenter Pro's victories were by a slim margin (less than 10 percent), remember that the 9600/233 costs well over a thousand dollars more. But don't count out Cupertino's pride and joy. In Speedometer 4.02 graphics tests, it beat the PowerCenter Pro by about 40 percent. Still, real-world graphics usage depends on other variables, such as hard drive and bus speed. Our Adobe Photoshop tests reflected this: Gaussian blurs and unsharp mask filters were only 20 to 35 percent faster on the 9600/233.

No doubt, the PowerCenter Pro 210 is a blazing machine and an amazing value for speed freaks who don't need maximum expandability and graphics performance. Professionals who work with large graphics files day in and day out still will find the Power Mac 9600/233's increased graphics speed, greater number of PCI slots and expansion bays, and the functionally wonderful design invaluable—or at least worth the extra dough. —D. D. Turner

### PowerCenter Pro 210

**GOOD NEWS:** Super speed in a consumer computer. Fast hard drive with Ultra-Fast SCSI card. Built-in 3D acceleration. Fast system bus.

**BAD NEWS:** Case feels cheap. Difficulty accessing innards.

### Power Macintosh 9600/233

**GOOD NEWS:** Top of the line. Super industrial design. Easy access for upgrading. Top graphics speed.

**BAD NEWS:** Expensive. Nonupgradable Level 2 cache. Speed advantage decreasing.





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# reviews

## NUpowr 1400/183

**COMPANY:** Newer Technology

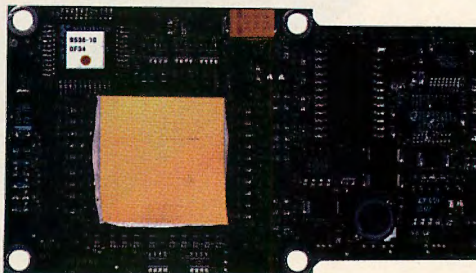
**CONTACT:** 800-678-3726, <http://www.newertech.com>

**PRICE:** \$599.95 (street)

**N**o doubt, the PowerBook 1400 is a nice, solid machine. But nice only gets you so far in this world. Sometimes you need raw force and speed. And that, unfortunately, is where the 1400 shows weakness, clocking in at only mediocre in our real-world tests.

However, the oddly spelled NUpowr 1400/183 upgrade card is like a dose of 'roids for the 'Book. It not only replaces the 1400's 117MHz 603e processor with a 183MHz version but has an integral 128K of Level 2 cache. Although it doesn't bring the 1400 up to PowerBook 3400 speeds, it does give it a kick in the hinge.

Installation is fairly easy: You need a small Phillips screwdriver, and possibly needle-nosed pliers. Flip off the keyboard, unscrew a few screws and support pins (here's where the pliers help), unseat



**THE BOARD ITSELF** is small, for a tight spot, but powerful.

the processor card, seat the new one, and replace everything you've removed. Instructions are spare but sufficient.

The speed boost was significant when using testing software (system calls showed nearly a 60 percent improvement), but in Adobe Photoshop 3.0.5 tests, the speed increase was far smaller (a 15 to 20 percent in such common actions as Unsharp Mask and Gaussian Blur). Most likely this is due to the 1400's 33.3MHz bus speed (which also accounts for the odd chip speeds of 117 and 183MHz, because they must be a multiplier of the bus speed). Still, screen redraws were noticeably faster, and other daily activities such as word processing, gaming, and movie playback were definitely snappier.

Given the modest price of the PowerBook 1400, it, plus this upgrade card, constitute a fairly affordable, fairly powerful portable system. In

other words, nice and fast. People could say worse things about you. —D. D. Turner



**GOOD NEWS:** Offers definite acceleration. Built-in L2 cache.

Comes with RAM Doubler 2 and Speed Doubler 2.

**BAD NEWS:** Still can't do anything about slow bus or video subsystem.

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## Sony DSC-F1

**COMPANY:** Sony

**CONTACT:** 800-770-9775,

<http://www.ita.sel.sony.com/products/imaging/dscf1.html>

**PRICE:** \$849 (street)

The Sony DSC-F1 is packed with more goodies than a Snickers is with peanuts, in a package not much larger. It weighs less than 10 ounces and fits in the palm of your hand; I thought the X-ray spy camera that I ordered from the back of a 1972 Archie Comics issue finally came, a quarter century too late.

The DSC-F1 uses a 1.8-inch LCD screen for everything from a viewfinder to a playback monitor to a distinctive user interface. Almost every control on the camera is accessed through an onscreen menu.

The 640-x-480-pixel images are saved in a compressed JPEG format. The 4MB flash memory stores up to 30 120K "fine"-quality photos, 58 64K "standard"-size images, or 108 32K "snapshots." When getting into the 32K range, the compression ratio is so high that you will notice some artifacts caused by the compression. Otherwise, the image quality doesn't differ much between settings—it's not great but not bad. Sony obviously had online publishing in mind when designing this camera: The photos don't hold up at anything bigger than 4 x 3 inches at 150 dpi at the "fine" setting. Overall, image quality is noticeably lower than that produced by other digital cameras we've tested, such as the Epson PhotoPC and Olympus D-200L.

Though the DSC-F1 is no winner in image quality, color is a strong point. Sony's camera transcends the odd color casts that plagued earlier digital offerings. The camera produces colors that are consistently bright and vibrant without being oversaturated.

The DSC-F1 uses a 4.8mm video lens, which is comparable to a 35mm lens on a 35mm camera. This puts the camera's optics somewhere between a wide-angle 28mm and a normal 50mm lens. A zoom feature would be nice, but the camera does have a macro option that allows closeups from 0.08 to 0.25 meters.

Most intriguing is how you can customize the way the camera takes a picture. The list includes a "continuous" option that allows you to fire off a series of four or six images 0.2 seconds apart (not in fine mode, though). You can even bend the time-space continuum by selecting the "time machine" function: The camera records images directly preceding and following the one you take. I know it sounds crazy, but it works.

**MOUNT 'EM UP:** Unique to the DSC-F1 is the motor-drive-like ability to take a series of photos with one touch of the button.



**HAVE A COW:** At the highest quality setting, the DSC-F1 doesn't achieve the image quality of competing digital cameras, but it's more than adequate for Web work. Color quality, however, is top-notch.

One more beef I have with the DSC-F1 is the battery. The rechargeable lithium ion battery takes up to eight hours to charge fully and gives the camera 20 minutes of recording time or 35 minutes of playback. This seems to be adequate; I usually exceed the memory allotment before depleting the power. The problem is the battery begins to lose power whether or not you're using the camera. This prevents you from taking the camera on a camping trip or anywhere else very far from an AC outlet.

Downloads take anywhere from 36 seconds for fine images to a 14 seconds for snapshots. The software, named Digital Still Camera Album Utility (where do they come up with these names?), transfers images to proof-sheet-like "albums" that you can save to your hard drive. Once the photos are in the albums, you can click on an information icon that will relate everything you forgot to write down about that particular shot. The program stores everything from shutter speed and flash setting to compression ratio, along with any smarmy commentary you might want to add.

As a default, the utility saves images to your hard drive in their native CAMS format. CAMS is a type of JPEG format that you can't open in Adobe Photoshop or anything else that I know of besides the Sony utility. So if you're an unrepentant pixelhead like me, you'll want to save your images in either JPEG or PICT format.

If these two flavors don't float your boat, the camera also comes with an image manipulation program by ArcSoft called PhotoStudio DSC. The package has most of the basic picks and shovels that you'll need to click your way to a better-looking life without too much trouble. It doesn't support layering, though, so you'll have to think way back to Photoshop 2.5 and try to remember how to cope.

Sony is to be applauded for the plethora of innovative features it packs into the DSC-F1. However, this camera just doesn't produce images that look as good as they could. If image quality is your primary concern, this may not be the camera for you; feature freaks, though, will be in gadget heaven. —Ray Larsen



**GOOD NEWS:** Good color. Fun features. Compact size.

**BAD NEWS:** Tricky onscreen controls. Batteries drain by themselves. Lacking in image quality.





# reviews

reviews

## Claris EMailer 2.0

**DEVELOPER:** Claris

**CONTACT:** 800-325-2747, <http://www.claris.com>

**PRICE:** \$49 (SRP)

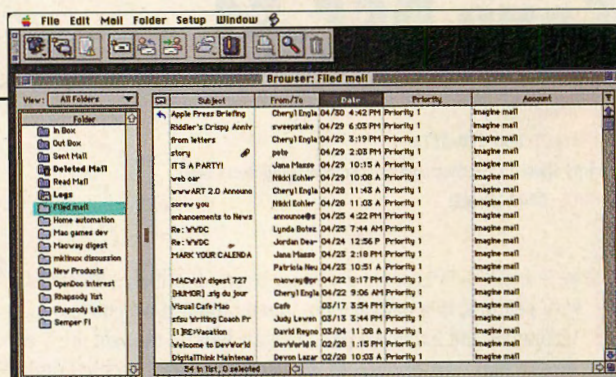
**REQUIREMENTS:** System 7 or later, 68020 or faster, 3MB of free RAM, 9MB of hard drive space, email account

It takes a lot to get me to switch software packages (unless you dangle an alpha version in front of me), especially when the current software does the job. Such was the case with Qualcomm's Eudora and Claris EMailer 2.0. While Eudora Light does most of what I wanted it to do, it hits the wall when it comes to multiple email accounts and filtering (you have to quit and restart the application, that sort of thing). Then I tried Claris EMailer 2.0. This email client does everything you expect it to—it handles filters and multiple accounts gracefully and adds a couple of enchanting features via AppleScript.

Emailer, of course, sends and receives email, and it does it through a comfortable user interface that includes an easy-to-use toolbar and mail browser. In the browser, select a mail folder on the left and a list of messages in that folder appears on the right. The list looks like a Finder window as seen in List view. If you want to sort your messages, merely click on the appropriate header and the messages resort themselves like magic. Emailer's toolbar is equally easy to use. Its 11 buttons use built-in hot help: put the pointer over the mouse button and the button's function appears below. Hold down the command key and the command-key equivalents of the buttons appear.

Filters—called Mail Actions—are also a snap to set up: Just create a new action, give it a name, then set the criteria under which the action takes place. Once that's done, you can define the action; it can be as simple as moving the mail to the appropriate mailbox or as complicated as setting the message's priority, printing it, automatically forwarding it, then running an AppleScript that speaks to you to tell you that you have an important message waiting. The great part about setting up a Mail Action is that it's easy, primarily thanks to good user interface design.

Despite its simplicity, EMailer has some real power because of AppleScript. A built-in AppleScript menu allows you to access any AppleScript in the EMailer folder (see The Disc for EMailer scripts that you can use). As an added bonus, EMailer can run an AppleScript as a result of a Mail Action, which means you can use Emailer to control your Mac remotely via email (provided all of the actions and AppleScripts are properly set up). It can send a Shut Down message to your Mac, for example, with a simple electronic missive.



**EMAILER USES** a file browser window to give you access to your mail messages. Just click on a mail folder and the filed messages will list themselves to the right.

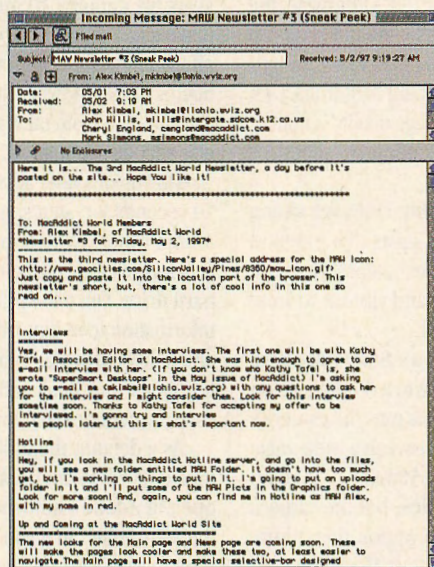
Emailer has some other good features. Because it keeps all its letters in a single database, the Find function searches through all messages and presents the ones that match in a separate window, much like the Finder's enhanced Find File. Setup is also a breeze.

Follow the four-step Easy Setup process and you're ready to receive your email. If you have multiple email accounts, EMailer will handle those as well, including non-Internet mail sources such as America Online or CompuServe. EMailer also has the option of limiting large downloads so you're not waiting all evening for some unwanted spam image to arrive, and it can even randomize your signature so you present a fresh face every time you send a message.

All is not milk and honey with EMailer, however. Although it's a simple program to use, EMailer has little in the way of documentation, instead pointing you to the online help files—a problem if you chose not to install them. Also, EMailer doesn't just go and get your email when you connect; you have to press a Connect button. You can, however, write an AppleScript that will get around this little problem (our custom AppleScript is included on The Disc).

Emailer is worth the \$49, especially if you receive a lot of email or have special

things you need to do with that mail. Sure, Eudora Light is free, but it can't do everything EMailer can do, and its user interface is way behind EMailer's. Give it a try. You'll like it—especially if you like AppleScript. —David Reynolds



**EMAILER MESSAGES** look about as you'd expect them to look. The window structure has buttons to read the previous and next messages or add a recipient or attachment.



**GOOD NEWS:** Simple setup and interface. Good AppleScript support. Able to import Eudora mailboxes and addresses. Support for unlimited email accounts. Can speak incoming mail with some personality.

**BAD NEWS:** No autoconnect feature without resorting to AppleScript. Documentation is sparse.



# reviews

## SmartSound for Multimedia 1.5

**COMPANY:** Sonic Desktop Software

**CONTACT:** 800-454-1900, <http://www.sonicdesktop.com>

**PRICE:** \$179.95 (SRP)

**REQUIREMENTS:** CD-ROM drive, System 7.0 or later, QuickTime 2.1 or later

**N**eed multimedia music in a hurry? Don't know how to edit a QuickTime soundtrack? SmartSound remains the easiest-to-use automated soundtrack creation tool around and adds some significant features that make it more useful for movie makers and Webmasters.

SmartSound offers the Maestro window, which asks you a series of questions that step you through soundtrack creation. All the real work you have to do is to time the length of your movie. Composers who don't mind getting their fingers into the mix can go right to the Sequencer and rearrange blocks of ready-made music imported from SmartSound's music collection. Flags cue you to what blocks work well with others and where you'll have to deal with transitions. SmartSound automatically designs well-timed openings and endings (the most important parts of any composition).

Version 1.5 adds the necessary ability to show the movie you're scoring. Now you can view thumbnails of the movie right in the

Sequencer, tell SmartSound to create a score to the exact movie length, then export the movie with finished score attached. This revision supports RealAudio files and files compressed to the IMA audio standard for fast downloads.

The SmartSound disc is crammed with samples in a range of musical styles, but there still isn't enough thematic variety. However, add-on libraries are available from Sonic Desktop. You can import AIFF sound files or grab tracks off audio CDs, but these won't blend as seamlessly as SmartSound's own loop-friendly clips. One thing this program must add—a silence track. —*Steven Anzovin*



**WITH SMARTSOUND'S MAESTRO, soundtrack creation is a no-brainer.**



**GOOD NEWS:** Fast, easy soundtrack creation. Shows QuickTime movies in the Sequencer. Supports Web audio file formats.

**BAD NEWS:** Needs more music clips in more styles.

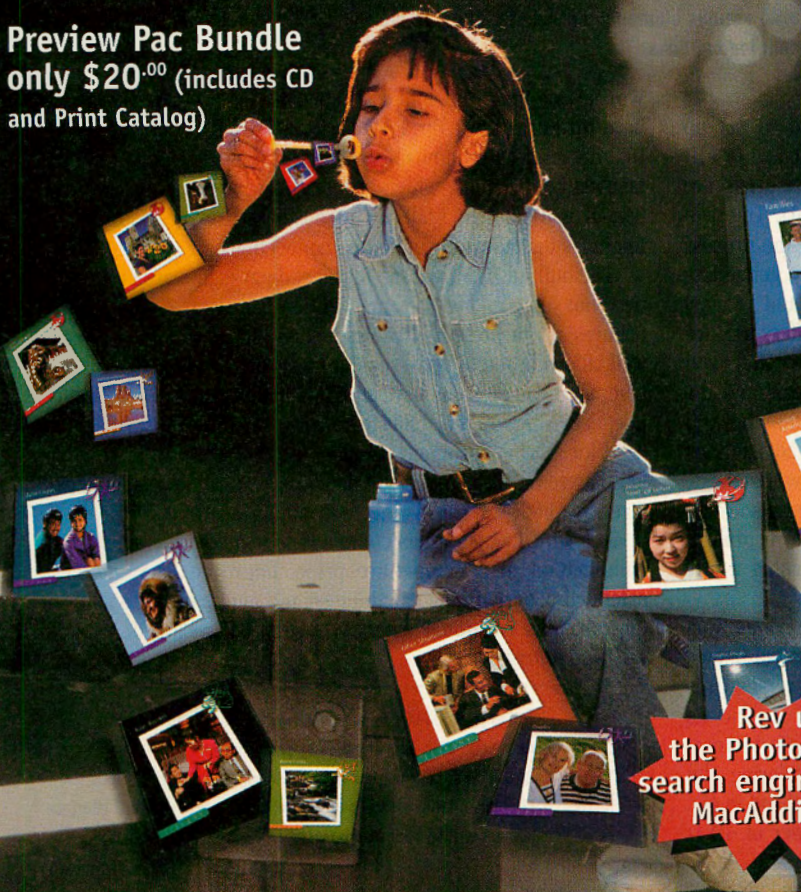


reviews



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# reviews

## 4th Dimension v6

**COMPANY:** ACI US

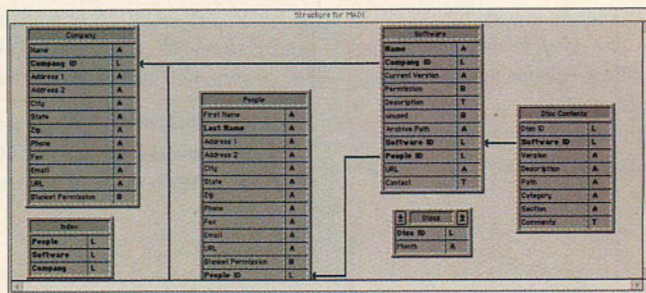
**CONTACT:** 800-881-3466, <http://www.acius.com>

**PRICE:** \$299 (street) for 4th Dimension, \$499 (street) for 4D Desktop

**REQUIREMENTS:** 68020 or faster, System 7.0 or later, 16MB of RAM, color monitor

If Claris FileMaker doesn't quite meet your database needs, you may want to check out this offering from ACI. In the past, 4th Dimension (4D) has been primarily a developer's tool, but the company has made it much more accessible to the average user. ACI didn't remove any of the powerful development tools; it just made 4D easier to use. The program is even cross-platform, so you can use it on your Mac in your Windows-based office.

The 4D database is just one of several products in a suite of database development tools and add-ons. The database alone is within a hundred dollars of FileMaker's \$199 price tag, and you get a whole lot more for your money. A bundled package called 4D Desktop (\$499) includes a compiler and a database object management tool called 4D Insider. Both of these tools are indispensable for 4D programming.



**THE STRUCTURE VIEW:** In 4th Dimension's graphical interface, each box represents a file with various elements that can be filled on the fly, and the arrows represent logical links.

It isn't hard to set up a simple database in 4D (the included tutorials are clear and useful). The program simplifies the process of automatically generating input forms and report forms, and it offers a range of form styles. After you choose your fields and the kind of information they will hold, you're ready to start using your new database. Many people could solve all their database problems without ever writing a line of code.

Although previous versions of 4D were not known for their speed, version 6 is quick—not as quick as FileMaker Pro, but close, especially considering the greater data overhead in 4D.

The real power of 4D is

**TO BUILD A FORM,** you "paint" in fields and specify variable parameters. The resulting Web page looks about this dull without customizing the HTML, however.

in the world of development. This version is much more object oriented in nature and a good deal more intuitive. The language is compatible with previous versions but includes many more commands and a vastly improved debugger.

One of the most compelling new features of 4D is built-in Web publishing. Any database you create can automatically be translated into and served as HTML on the

World Wide Web. The application becomes the Web server; all you have to do is run it on a Mac with a TCP/IP connection to the Internet and you're in business. The server allows up to five simultaneous connections, which is more than adequate for personal use. If you want to scale up to business use of 4D, there are upgrades that allow for unlimited connections.

The built-in HTML for the forms and navigation aren't the prettiest, but you could write your own HTML instead. When 4D's Web features are turned on, it works just like a regular Web server as well, allowing you to serve regular files from any directory on your computer. You even can have an HTML link trigger a 4D procedure, in effect giving you the ability to perform superfast CGIs without the need for a "glue" program. (A glue program acts as an intermediary between a Web server and database that cannot communicate directly, which can cause a decrease in performance.)

ACI 4th Dimension has come a long way since version 3. The combination of a competitive price, improved user interface, extended programming capabilities, and automatic Web publishing puts this relational database system in a class of its own.

—Wade Albright

### Put It Up

How easy is it to put a database on the Web from start to finish with 4th Dimension? It took me about 15 minutes from opening the box to having a simple Web database up and running. Assuming you have created a database and installed at least one custom menu (you need at least one user-defined menu to act as the default command for displaying your data on the Web), here are the steps to put it on the Web:

1. Under the Tools menu in the design environment, select Explorer. Select your main table from the list on the left, and select the Forms tab at the top. Click New.
2. Give your new form a name, and choose the "detail" form type. Choose Web Aware for the template, then select the fields you want to appear by dragging them from the left column to the right. Save when you are finished. Repeat the steps above, choosing "list" as the form type to make a list layout.
3. Make sure you have configured your TCP/IP settings properly, and you're finished. Point your favorite Web browser to your machine's IP address to test it. ACI 4D lists all your custom menus as commands for displaying and entering data.

**GOOD NEWS:** Fully relational, powerful development tools.

Automatic Web publishing. Easy user interface.

**BAD NEWS:** Learning curve is still steeper than that of Claris FileMaker. Little control over the look and feel of the Web interface without writing your own HTML.





# reviews

## VectorTools 2.0

**COMPANY:** Extensis

**CONTACT:** 800-796-9798, <http://www.extensis.com>

**PRICE:** \$99.95 (street), \$49.95 upgrade from DrawTools 1.0

**REQUIREMENTS:** 68030 or faster; System 7.5 or later; Adobe Illustrator 6.0 or later, or Macromedia FreeHand 5.5 or later

A few years ago, Extensis introduced DrawTools, a set of plug-ins for Adobe Illustrator and Xtras for Macromedia FreeHand, providing Adobe Photoshop-style control over color editing and sophisticated 3D effects with interactive previews. VectorTools 2.0, its successor, is an impressive and well-conceived and -applied package. It works well and helps you work well.

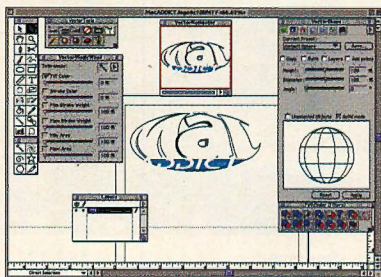
VectorColors provides absolute color control over vector objects, including random color replacement, multitone, and curve control. VectorMagicWand (similar to Magic Wand in Photoshop) selects items with similar attributes in the document and includes a floating palette with options to control the tolerance of the four selection attributes: fill color, stroke color, stroke weight, and size. VectorNavigator is a resizable floating palette with a preview mode and a thumbnail navigation that allows you to move instantly to any location in the document—Photoshop 4.0 users should recognize this feature. VectorShape provides an incredibly easy means of adding 3D effects to illustrations by instantly projecting the graphic elements onto geometric shapes selected from the VectorShape palette. You then can customize the results with the equally simple-to-use controls. Settings can be saved for reuse. Very cool feature: the instant preview within the palette.

In VectorLibraries, you can save images, text, or illustrations, which can be viewed by thumbnail and quickly dragged and dropped to and from the floating library palette. For Illustrator users only: VectorObjectStyles adds the FreeHand-native ability to create and apply object styles within a document. Add to this mix customizable toolbars and a few other useful features, and it becomes abundantly clear that Extensis has created a must-have group of tools.

The most impressive element of VectorTools 2.0 isn't any single component: It's the overall design and integration of the package. Clearly, Extensis knows these applications and—more important—knows how people work with them. —*Ralph Seymour*



FIND A  
DEMO of  
VectorTools  
2.0 on  
The Disc.



**SHAPELY:** VectorShape was used to bend a flat image to a curve that was later used in a design for a bottle.

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**MacWEEK:** "The first Web utility that is essential."

**MacUser:** "The cream of the crop."

**Macworld:** "Pros: Simple; convenient; essentially no learning curve. Cons: None."

**Rolling Stone:** "Makes the Web a lot more manageable."

**The Net:** "Extremely functional, with a very small footprint."

**Webintosh.com:** "The Holy Grail of Web utilities."



**NEW! Version 1.4 on CD-ROM now!**

No disk? Grab a copy from:  
<<http://www.webquick.com/spider>>

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Available for Mac/Win95/NT4. Requires Netscape Navigator® or Microsoft Internet Explorer™.



**GOOD NEWS:** Significantly expands the capabilities of two already formidable illustration packages—Illustrator and FreeHand.

**BAD NEWS:** Can make for a crowded screen.





# reviews

## F/A-18 Hornet 3.0

**COMPANY:** Graphic Simulations

**CONTACT:** 800-580-4723, <http://www.graphsim.com>

**PRICE:** \$45 (street); \$19 update from version 1 or 2

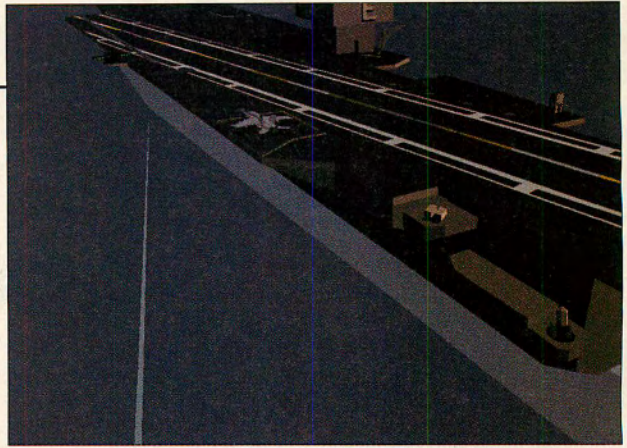
**REQUIREMENTS:** PowerPC, 25MB of hard disk space, 10MB of free RAM, CD-ROM drive



FIND A  
DEMO of  
F/A-18  
Hornet 3.0  
on The Disc.

**G**raphic Simulations has leapt to version 3.0 of F/A-18 Hornet, adding lots of features, most of which support and surround the core game rather than change it. New on the checklist: an interactive training guide that features videos and whiteboard drawings; true radar masking that lets you evade enemy radar, SAM sites, and anti-aircraft weapons; rolling terrain that simulates actual hills and canyons; better graphics that include haze, clouds, and smoke; and improved missile modeling, which enhances weapons guidance and performance.

All these features make flying the F/A-18 quite an experience, especially considering they are additions to an already complex flight simulator. The learning curve for Hornet 3.0 is steep, so if you're planning on jumping into the cockpit to down a couple of enemy planes, don't count on it. Instead, you'll probably need to go through part of the interactive training guide. This informative section of the program includes some great videos, but there seems to be a bug in the video player.



**PERCHED ON AN AIRCRAFT CARRIER** somewhere near Kuwait, your F/A-18 is ready to rock.

The simulator runs at up to 1,024 x 768 pixels, and it was silky-smooth on a 200MHz 604e (go figure). Its multiple views are also a pleasure—just wait until you watch your first AIM-120 slam into an opponent's plane. The enemy aircraft and anti-aircraft sites are tough, with good artificial intelligence, so be prepared for a

challenge. You may want to crank the difficulty down a couple of notches until you get the hang of things. If you don't find playing against your Mac challenging, you can always use Hornet's networking capability to go up against another human pilot.

If you've played Hornet 2.0, you'll probably find the missions familiar. Fortunately, for those who own earlier versions of Hornet, there is an upgrade option to version 3.0

for only \$19. The Korean Crisis expansion set, however, will not work with version 3.0, so you'll have to continue to play that set with Hornet 2.0.

Once you are comfortable in Hornet 3.0's cockpit (and you ignore the occasional bug, such as being able to pull a nine-G turn without blacking out), you'll find that this is a great game. The missions are not new, but they play better than they did in 2.0. Besides, this is the best combat flight simulator around. —David Reynolds



**GOOD NEWS:** Support for 1,024-x-768-pixel resolution. Great flight dynamics, weapons, and opponent artificial intelligence.

**BAD NEWS:** Steep learning curve. Ground school has some bugs. No new missions (although they have been tweaked). Sparse documentation.

## Control Issues

**COMPANY:** CH Products

**CONTACT:** 760-598-2518, <http://www.chproducts.com>

**PRICE:** F-16 Fighterstick \$109.95 (street);  
Pro Throttle \$109.95 (street)

### F-16 Fighterstick

Although you can fly the Hornet with a mouse, you would be doing yourself a disservice if you didn't use a joystick. We used the CH Products F-16 Fighterstick and found it a joy to use. Once calibrated, the joystick was quite accurate, and the four hat switches were useful for looking around and setting things like trim. Also, the programmable buttons came in handy for trifling matters such as setting and firing missiles, dropping bombs, and the like.

### Pro Throttle

For even better control, and a more realistic experience, you really should add a throttle control rather than trying to fake it with the keyboard. The Pro Throttle also has an eight-way hat switch, a bunch of programmable switches and push buttons, and a trigger. Besides, you sure can intimidate your office mates with your two-fisted flying approach.



**TWO ENEMY BOMBERS** trail smoke after meeting with a couple of AIM-120 air-to-air missiles, courtesy of the F/A-18.

After a movie runs for a couple of minutes, the audio resets to the beginning while the video continues to run—frustrating when you're just about to get a vital piece of information. The manual isn't much more help: It looks like something issued by the Navy, and it assumes that you already know something about flying a combat aircraft.

Once you're in the air, Hornet 3.0 is tons of fun.



# reviews

## Obsidian

**COMPANY:** SegaSoft

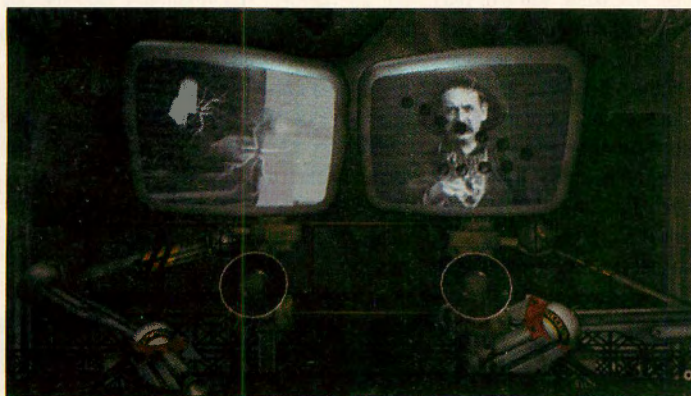
**CONTACT:** 888-734-2763, <http://www.segasoft.com>

**PRICE:** \$49.99 (\$RP)

**REQUIREMENTS:** Power Mac, 16MB of RAM, 4X CD-ROM

**A**t some point, the word *adventure* will produce only a yawn in the jaded gamer. After all, the majority of games of this genre are slow, hunt-the-hot-spot, juggle-the-inventory yawners with dull plots and a smattering of multimedia. Obsidian does degrade at times to spot-hunting, but it *is* different.

Obsidian makes a great effort to work more in a dream-based paradigm than a logical one—words appear out of clouds and golden rings, but you're still faced with Byzantine bureaucracy before you can get a bridge fixed. It's like walking through a Kafka novel, one beautifully rendered in 3D. You begin in the real world, albeit in 2066, playing Lilah, the mother of a nanotechnology that's repairing the earth's environment (nice to see a female protagonist without a big gun). On a hiking trip in the northwestern United States, Lilah and her partner, Max, discover a growing black rock (the Obsidian), and Max is swallowed by it. Lilah—you—to the rescue.



**YOU'LL HAVE TO WORK** your way through a bureaucratic nightmare of obsequious and, in this case, surly desk clerks.

Gameplay is similar to most first-person adventure games since *Myst*'s arrival. Click the onscreen arrows to navigate (though in Obsidian, your motion plays as movies from point to point) and interact. The script and acting are almost there, though sometimes rattle. One annoying point: When you have to accomplish a task, characters constantly tell you exactly *what* to do, though not *how*. Guess that's part of the bureaucratic nightmare.

Expect to spend more than 40 hours getting through this dream world. You'll enjoy some of the best visual design in gaming (visual and audio puns abound, too) and music from Thomas Dolby's Headspace studio. It's an interesting experience, this Obsidian.

—D. D. Turner



**GOOD NEWS:** Lovely artwork. Unique perspective. Flashes of originality.

**BAD NEWS:** Puzzles can be annoying, as can hints from characters.



## XTension

There is just one...

**Home automation for  
the Mac is back!**

**This time it's not a joke!**  
**See our review in the July 1997 MacAddict**

**XTension** the serious automation and security software finally challenges a world that the PC has dominated for 10 years. Stop wishing and stop running PC software on your Mac.

With the new inexpensive X-10 interfaces, and even an old MacPlus, you can create a great home system. Our customers report that it's easier and cheaper, and more fun than they ever thought.

Hundreds of products are already available from catalogs and from your local Radio Shack. From light dimmers to laser beams and pet feeders, you'll love the things that your Mac can do with **XTension**:

Multiple graphic views and active icons

Import your own Picts and icons

Works on Mac Plus and all after

Network all your Macs

AppleScript compliant

Sunrise/Sunset tracking

Written in 'C' - Fast and lean

Control other Mac apps

Schedule events and macros

Complete activity log

Simulated Pre-set Dim

AppleScript conditional logic

Mac voice control and annunciation

Works with ADB I/O, YoYo and QuickCam

Hundreds of compatible products

Works with **CM11A** and other interfaces

**Software only: \$99.95 list**

**Free version for the CP290!**

**See our website at:**

**[www.shed.com](http://www.shed.com)**

**XTension** is available from your home automation distributor or from:

**Sand Hill Engineering Inc.**

email: [sandhill@shed.com](mailto:sandhill@shed.com) voice: 407-349-5960





# cd-roms

HARVARD GUIDE TO WOMEN'S HEALTH ■ LONDON BLITZ TO PEARL HARBOR ■ WITNESS TO THE FUTURE ■ JENNY CRAIG COOKBOOK ■ LIFE IN THE UNIVERSE

**C**hirp. Chirp. Chirp. The birds are enjoying the lovely day outside. Should you join them to bask in late-summer sunshine? Of course not, silly, especially when you have a Mac and a whole selection of new CD-ROMs to browse. This month we offer you a dull health manual from those wild and crazy researchers at Harvard, a

"light" Jenny Craig cookbook with even fewer pictures and movies than calories, a confusing portrayal of life in the universe, and a pretty good collection of some really old planes. On second thought, maybe this month you'd be better off spending your time outside—far, far away from those birds of ill omen. —*Joe Mahr*

## The Harvard Guide to Women's Health

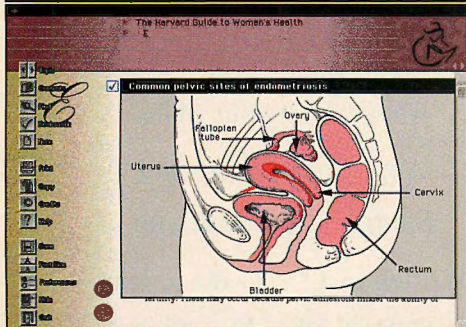
**COMPANY:** Pilgrim New Media

**CONTACT:** 800-99-PLGRM,

<http://www.plgrm.com>

**PRICE:** \$29.95 (SRP)

**REQUIREMENTS:** 2X CD-ROM, System 7.0 or later, 68040 or faster, 8MB of RAM



IVY LEAGUE HEALTH lesson leaves you snoozing upright before you can even diagnose what ails you.

**S**olid research by respected physicians. Informative illustrations and charts. Thorough cross-referencing. Objective, well-reasoned reports on controversial topics. The Harvard Guide to Women's Health offers just the sort of unadorned information dump you'd expect from the prestigiously dull institution.

The health handbook is Harvard at its best...and worst. On one hand, you can read weighty discourse on 300 topics—probably the best collection of research on women's health out there. On the other hand, you really have to read it. Long essays weighted down with an Ivy League vocabulary and a distinct lack of QuickTime clips make muddling through the research less inviting than your annual trip to the gynecologist.

It's no surprise that the disc reads like an

electronic book, since it's based on one by the same title. In fact, if you spend \$10 more, you can get the book with the disc. Of course, you might want to get just the book.

### The Last Words:

**Mark:** I wonder about the emphasis on big-ticket afflictions and diseases rather than general health and preventive care. Also, the simple alphabetical organization seems like an invitation to hypochondriacs to diagnose themselves with an aortic rupture simply because it's the first cause listed for stomach pains.

**Judy:** One word: *book*. I'll say it again. BOOK. Buy the book.

**Joe:** Aside from making the easy joke about this disk curing insomnia, I think it needs many more visuals. Don't just tell me, show me, too.

## Wings: London Blitz to Pearl Harbor

**COMPANY:** Discovery Channel

Multimedia

**CONTACT:** 800-678-3343,

<http://www.multimedia.discovery.com>

**PRICE:** \$39.95 (street)

**REQUIREMENTS:** 2X CD-ROM; Quadra, Centris, or Performa with System 7.0 or later (Performa 6100 with System 7.1.2 or later); 8MB of RAM



Harbor—the fourth in the Wings series—not only offers a comprehensive database of 720 early World War II-era planes, but it also features 3D tours of select air bases and a passable audiovisual history of the Big War. Any wannabe dogfighters in the ranks can break from these historical flashbacks by manning the old planes in a series of patriotic flight simulations.

Wings doesn't soar quite as high as it

should, burdened by its confusing interface. Although the lousy navigation may leave some rookie pilots in an unrecoverable tailspin, hard-core vets will fly on eagerly.

### The Last Words:

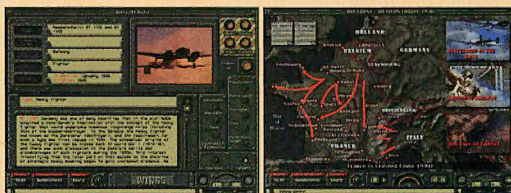
**Mark:** This could be just the thing for the Discovery Channel buffs. Three-dimensional animated battle sequences, rotatable airfield models, and battle maps (complete with menacing invasion arrows) elevate this above mere shovelware.

**Judy:** I was frustrated by the interface. Switching between an image and its corresponding text meant taking several steps backward. Ugh.

**Joe:** The simulation, while quirky, still provides hours of fun, especially if you try to shoot down your own planes.

**F**or years, weekend warriors—armed only with remotes and maybe Cheetos—have invaded TV rooms across the country to watch planes shoot down other planes. Now, thanks to Discovery Channel Multimedia, these wings nuts have shifted camp to the computer, where they can check out the combat more closely.

Wings: London Blitz to Pearl



ARMCHAIR AERO-NUTS will want to nose-dive right into this plane and simple flight program.



## Witness to the Future

**COMPANY:** The Voyager Company  
**CONTACT:** 800-446-2001,  
<http://www.voyagerco.com>  
**PRICE:** \$39.95 (SRP)  
**REQUIREMENTS:** 2X CD-ROM,  
 System 7.0 or later, 68040 or faster, 8MB of RAM



includes the entire manuscript of Rachel Carson's *Silent Spring*—the book widely credited with launching the environmental movement in 1962. Together, they're enough to bring tears to hard-core tree huggers.

But not really anybody else. Mainstreamers who aren't already recycling their Pepsi cans and writing reps in Congress for pesticide controls probably won't be moved to activism by this collection of sob stories. If only the disc included a few more facts describing the who,

what, where, when, and why we should care about these environmental misdeeds, along with a few interviews with the corporate bad-dies, the disc would come off as more than just an emotionally charged one-sided debate.

### The Last Words:

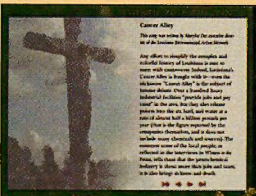
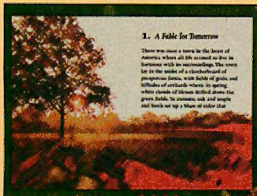
**Mark:** It seems as though more energy was devoted to splicing together repetitive and redundant snippets of outrage from the afflicted than, say, explaining what the environmental atrocities actually are.

**Judy:** Decent as a motivational tool for grass-roots education and action, but what's the interest, again, for the general public?

**Joe:** It's nice to see such fervor for the environment, but most mainstreamers won't embrace the Granola movement without hearing both sides of the issue.

**C**ancer, birth defects, environmental racism—at first glance, this disc seems to serve a heaping helping of environmental woes sure to spur the righteous into indignation. But on closer inspection, the heaping helping is like leftovers.

Witness to the Future is really an offshoot of a 50-minute documentary by Branda Miller that focuses on how big, bad capitalists and the tyrannical government meddled with Mother Earth in three communities. The disc also



WHINY ENVIRONMENTAL DISC merely preaches to the choir.

## The Jenny Craig Cookbook: Cutting Through the Fat

**COMPANY:** Sierra On-Line  
**CONTACT:** 800-757-7707,  
<http://www.sierra.com>  
**PRICE:** \$34.95 (SRP)  
**REQUIREMENTS:** 2X CD-ROM,  
 System 7.1 or later, 68040 or faster



If sitting in front of your Mac all day has made your thighs spread faster than a bad Apple rumor, you may be tempted to turn to Jenny Craig's new CD-ROM cookbook to lighten up the situation. Well, in a word, don't. Unfortunately for Jenny Craig disciples, star power doesn't make up for a shoddy search engine and lackluster links.

The disc is loaded with 180 "light" recipes, supposedly from Jenny herself, but just try to pare them down. Unlike other elec-

tronic cookbooks, this database won't let you search by specific types of dishes or nutritional needs.

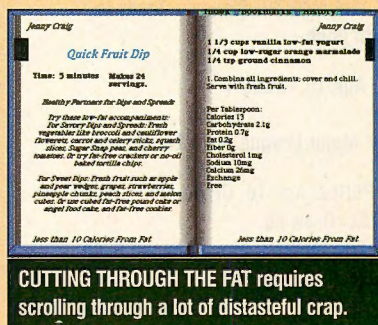
The CD-ROM does include standard QuickTime clips of how to beat eggs and store fresh chicken, but go to recipes where the demonstrations could be useful and there's no hyperlink. Even worse, there are almost no pictures. Anyone wanting to get slim fast would do better exercising their right not to buy this low-budget cooking disaster.

### The Last Words:

**Mark:** It's just food shovelware, a glorified HyperCard stack that simply catalogs a randomly chosen selection of unappetizing food substitutes. Puh-leeze.

**Judy:** So, just how hungry are CD-ROM developers these days? Did Jenny Craig quit chasing food to chase your hard-earned greens instead?

**Joe:** This is the rice cake of cooking CDs—no taste and no substance. Healthy living shouldn't have to be this frustrating.



CUTTING THROUGH THE FAT requires scrolling through a lot of distasteful crap.

## Life in the Universe With Stephen Hawking

**COMPANY:** MetaTools  
**CONTACT:** 800-472-9025,  
<http://www.metatools.com>  
**PRICE:** \$39.95 (street)  
**REQUIREMENTS:** 2X CD-ROM,  
 System 7.5 or later, 68040 or faster, 12MB of RAM



**S**cientists may suspect there's life on Mars, but nowhere is that life harder to prove than on MetaTools' first edutainment CD-ROM, hosted by Stephen Hawking, renowned physicist and author of the best-selling *A Brief History of Time*.

If you can find your way through the title's interface, you may learn something about the pulsars, Jovial moons, and extrasolar planets by bumping around somewhere on the disc. You may also chance upon Hawking's "Life in the

Universe" lecture, a few science games, and two time lines. Hawking shows that he knows his business on everything from Mars to the Milky Way, but unless you're an astrophysicist, his lecture is drier than the dust rings around Saturn.

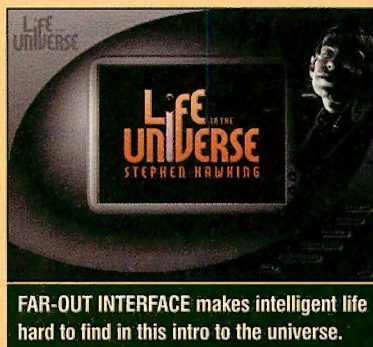
Disc makers tried to jazz up the lecture with 50 QuickTime movies and 200 animations on scientific principles that suffer the opposite problem: They're too dumbed down. Trying to mesh childlike illustrations with an MIT lecture can be frustrating, insulting, or both.

### The Last Words:

**Mark:** Another instance of mediocre content wrapped in an overdesigned, too-cool-for-school interface.

**Judy:** How about an interface that makes sense? C for effort, F for follow-through.

**Joe:** The disc's graphics insulted my intelligence, while the lecture insulted my stupidity. Science discs need to walk that fine line between information and education. This one stumbled all over it.



FAR-OUT INTERFACE makes intelligent life hard to find in this intro to the universe.





# Kidz Stuff

**Brisbane Elementary School Mac addicts play with kids' software and tell you all about it.**

## Major League Math 2nd Edition

**COMPANY:** Sanctuary Woods Multimedia

**CONTACT:** 800-943-3664, <http://www.ah-hah.com>

**PRICE:** \$29.99 (SRP)

**REQUIREMENTS:** 2X CD-ROM, System 7.0 or later, 68030 or faster, 8MB of RAM



**A**re you one of the many Chicago Cubs fans who is hopelessly awaiting the day the team reaches the World Series? Now you can quit waiting and take the Cubs there yourself—as long as you know a little math. Answer a math question correctly to score a home run, or get it wrong and strike out. Steal bases, hit and run, and choose from six different types of pitches to lead your team to the pennant.

Major League Math 2 is also packed with trivia, coaching tips, and just-for-fun, arcade-style games. Mastered all the questions? Unlock Pro Packs for more problems featuring your favorite teams.

**GOOD FOR GRADES:** 3 to 6

**LIKES:** "The graphics are great, and I loved the introduction. You can change the math level if needed. I did not get bored at all." ■ Hilary

"You can pick which team you want to be." ■ Matthew

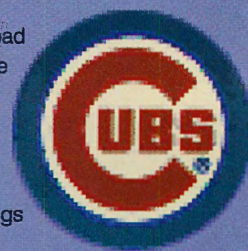
**DISLIKES:** "Some of the questions are complicated. If you want to go for a home run, you can't." ■ Daniel

"I hated the ref because he made such bad calls. I did not like the graphics because the players looked like birds." ■ Justin

**SOUND ADVICE:** "I would improve the ref. He looked strange, and he talked slowly."

■ Amanda

**FINAL REPORT:** Big league math brings the crowd to its feet.



## Meet the players...



**AMANDA OLSON, Age 10, Grade 4**  
**EXPERTISE:** Sports  
**PICK OF THE MONTH:** Disney's Ready to Read With Pooh



**MATTHEW AGUIRRE, Age 10, Grade 4**  
**EXPERTISE:** Science  
**PICK OF THE MONTH:** Major League Math 2nd Edition



**JUSTIN PEREZ, Age 10, Grade 4**  
**EXPERTISE:** Drawing  
**PICK OF THE MONTH:** Major League Math 2nd Edition



**DANIEL LAM, Age 11, Grade 5**  
**EXPERTISE:** Math  
**PICK OF THE MONTH:** Major League Math 2nd Edition



**BRIAN SCHROEDER, Age 11, Grade 5**  
**EXPERTISE:** Baseball  
**PICK OF THE MONTH:** Major League Math 2nd Edition



**HILARY WALDO, Age 10, Grade 5**  
**EXPERTISE:** Soccer  
**PICK OF THE MONTH:** Major League Math 2nd Edition



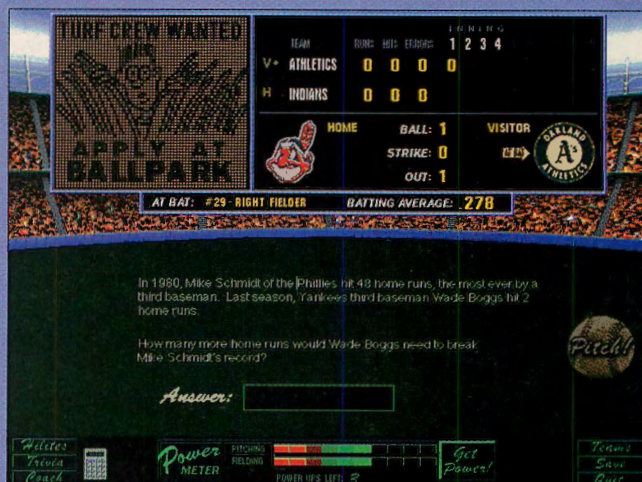
**REBECCA WALDO, Age 10, Grade 5**  
**EXPERTISE:** Drama  
**PICK OF THE MONTH:** Disney's Ready to Read With Pooh



**MARC OLIVA, Age 10, Grade 5**  
**EXPERTISE:** Sports  
**PICK OF THE MONTH:** Major League Math 2nd Edition



**MAJOR LEAGUE numbers game hits a home run with young sports fans.**



**ANSWER THE QUESTION, pitch the ball, then see how you score.**



## Mario Teaches Typing 2

COMPANY: Brainstorm

CONTACT: 888-4BRAINSTORM, <http://www.brainstormfun.com>

PRICE: \$29.95 (street)

REQUIREMENTS: 2X CD-ROM, System 7.0 or later, 68040 or faster, 8MB of RAM



**M**ario now has an even bigger head, but aside from that, a few splashy graphics, and a revised plot, there's not much new in this version of the typing tutorial. The rest of the game stays the same; you type letters as they scroll across the screen in level after level. Your hands get a rest when Mario gives you the scoop on your stats: total keys typed, number of errors, level of accuracy, problem keys, and words typed per minute.

**GOOD FOR GRADES:** 3 and up

**LIKES:** "The graphics are great. It gave me a reason not to look at the keyboard." ■ Hilary

"I liked how they tell you a story in the beginning about the magic typewriter that Mario needs to blow up Bowser's castle." ■ Matthew

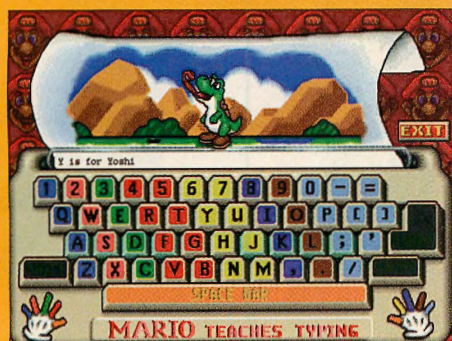
**DISLIKES:** "Mario Teaches Typing 2 is almost just like Mario Teaches Typing except Mario Teaches Typing 2 has better graphics and there is a story about the Typewriter That Could." ■ Daniel

"It was just like the last one." ■ Amanda

**SOUND ADVICE:** "I would put in new levels."

■ Justin

**FINAL REPORT:** Been there, done that.



MARIO TAUGHT TYPING just as well in the first version.

## Alphabet Adventure With Digby & Lydia

COMPANY: Panasonic

CONTACT: 888-PANAKID, <http://www.learningladder.com>

PRICE: \$34.95 (SRP)

REQUIREMENTS: 2X CD-ROM, System 7.1 or later, 68040 or faster, 8MB of RAM



**D**igby, Lydia, and Lee take a trip to see Mrs. Cat, a psychic feline with a few games up her sleeve. She sends you and the hopping hairballs on a journey to seek letters in the alphabet and to solve puzzling poems. You have to find an object on the screen that stands for the missing word in the poem, then find the letter that starts that word—it's hidden somewhere on the screen. Find all the letters and you win a prize. If you get sick of searching out your Ps and Qs, you can jack up the jukebox and dance to the beat of the 26 letters, each with its own little song.

**GOOD FOR GRADES:** 1 to 3

**LIKES:** "The thing I liked was that on almost anything you clicked, it reacted." ■ Amanda

"The jukebox was cool!" ■ Rebecca

**DISLIKES:** "The things that move look like paper cutouts. The graphics look like they're drawn in crayon." ■ Daniel

"When Digby and Lydia ran, they looked like kangaroos.

I thought there was too much singing." ■ Justin

"I did not like how you don't start off finding letters and solving poems. You need to find a butterfly and click on it just to go to a new screen."

■ Matthew

**SOUND ADVICE:** "All the songs in the jukebox should be short and snappy, not like a big song about a big teddy bear or zoological garden." ■ Hilary

**FINAL REPORT:** Alpha-boring.



WE LEARNED that A stands for awful, not adventure.

## Multiplication Tour With Mike & Spike

COMPANY: Panasonic

CONTACT: 888-PANAKID, <http://www.learningladder.com>

PRICE: \$34.95 (SRP)

REQUIREMENTS: 2X CD-ROM drive, System 7.1 or later, 68040 or faster, 8MB of RAM



**M**iss Alanis Morissette can kindly take her seat now—lovable lizards Mike and Spike are about ready to wow the world with a slammin', 11-nation, musical math tour starring...you. You'll solve multiplication problems in exotic locales such as Kenya and Egypt while Mike and Spike keep up a funky beat. Some quick math is in order to navigate the rivers of Zimbabwe and fend off Egyptian snakes, but if you do well, you'll earn the chance to record your music in the studio. Rack up enough bonus points and you just may find yourself in the Mike and Spike Hall of Fame.

**GOOD FOR GRADES:** 2 to 5

**LIKES:** "I like Mike and Spike. They are cool characters. I also liked the music." ■ Brian

"I liked that the mouse would give you help if you needed it, and it wouldn't always give [the answer] away." ■ Matthew

"You get to put your name in, and you get to pick from a bunch of faces what you want to look like." ■ Amanda

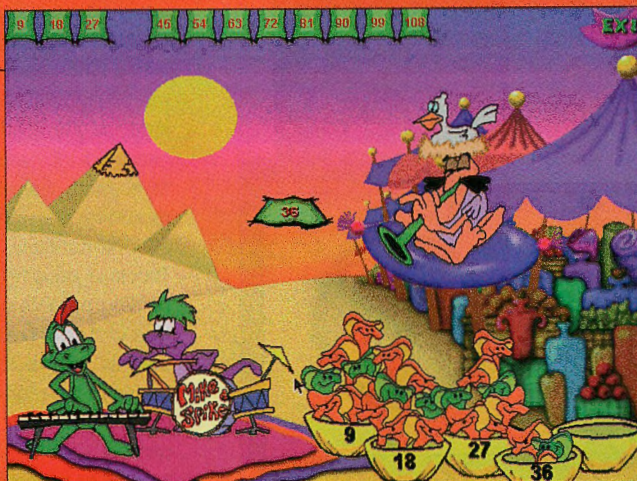
**DISLIKES:** "You only play one game. All you do is count in order." ■ Hilary

"It is hard to understand, and it is confusing to pick your player." ■ Marc

**SOUND ADVICE:** "I would have more games to play, and something else besides multiplication."

■ Justin

**FINAL REPORT:** It has a good beat that's easy to do math to.



MULTIPLE HOURS OF MUSICAL math fun in countries around the world.



## Exploration Station

COMPANY: Creative Wonders

CONTACT: 800-KID-XPRT, <http://www.creativewonders.com>

PRICE: \$34.95 (SRP)

REQUIREMENTS: 2X CD-ROM, System 7.1 or later, 68040 or faster, 8MB of RAM



Interplanet Janet's rocket ship has crash-landed on Earth. Help the hip chick get back to her future by conducting experiments to earn rocket parts and energy crystals. Learn how to wire a home in the Haywire House, clone aliens in the Gene Center, talk back to a porpoise using sound waves at the Aquarium, and answer quiz questions via Morse code at the Comm Station. Three levels of difficulty and the obligatory, but nevertheless delightful, SchoolHouse Rock videos make for hours of educational fun.

**GOOD FOR GRADES:** 3 to 5

**LIKES:** "I liked where you made your own monster." ■ Marc

"They gave you lots of choices of games, and you had to play all of them to get Interplanet Janet back to her home planet." ■ Hilary

**DISLIKES:** "I did not like the alien. She would stop when you answered the questions and take about 20 seconds to give you four crystals." ■ Amanda

"It didn't explain the games very well." ■ Rebecca

**SOUND ADVICE:** "Try to make it faster to get to the next place."

■ Justin

**FINAL REPORT:** It's the popular stranded-alien sob story with a scientific twist.



INTERPLANET JANET turns science into a rockin' good time for all.

## Amazing Animals Activity Pack

COMPANY: DK Multimedia

CONTACT: 800-DKMM-575, <http://www.dk.com>

PRICE: \$29.95 (street)

REQUIREMENTS: 2X CD-ROM, System 7.0 or later, 68LC040 or faster, 8MB of RAM



DK Multimedia's latest creature-feature boasts a chatty lizard guide, an informative sticker book, and tons of games and quiz questions that will turn young animal lovers into trained experts in the blink of a monkey's eye. Kids who do well at the games will earn the opportunity to answer tough quiz questions and win animal stickers for their digital collection. Click on any sticker in the collection to learn more about the animals. The activity pack also contains two books on animals, creepy crawly stickers that actually stick, and a press-out mobile featuring nine different bird species.

**GOOD FOR GRADES:** 1 to 4

**LIKES:** "I liked the movies and the dangerous animals." ■ Marc

"There are amazing 3D graphics and good puzzle games." ■ Brian

"That little lizard guy is so cute!" ■ Hilary

**DISLIKES:** "There are not many games to play." ■ Justin

"They should make it easier to understand. They should put in more things, like how long [the animal] lives." ■ Marc

**SOUND ADVICE:** "Make the lizard talk less, and make it stop following me!" ■ Daniel

**FINAL REPORT:** An animal attraction you can really dig your claws into.



ANIMAL LOVERS will go ape over the goodies in this walk on the wild side.

## Disney's Ready to Read With Pooh

COMPANY: Disney Interactive

CONTACT: 800-900-9234, <http://www.disney.com>

PRICE: \$35 (street)

REQUIREMENTS: 2X CD-ROM, System 7.1 or later, 68040 or faster, 8MB of RAM



Little kids who are drawn to Winnie the Pooh like bears to honey will love learning letters with their favorite fairy-tale teddy and all his friends. Play Let's Pretend with Roo, straighten up Piglet's cluttered cabinets in a concentration match of lettered dishes, or clean up Pooh's honey party mess by matching the lettered pots to their lettered spots on the shelf. By the time your kids have fulfilled their social obligations, they'll be able to teach Christopher Robin a thing or two.

**GOOD FOR GRADES:** K to 2

**LIKES:** "It had good animations. I think little kids like Pooh, so they'll love reading with Pooh." ■ Hilary

"It has so many games! If you have trouble, you can click on a red pot." ■ Rebecca

"I liked the game because I've always liked Winnie the Pooh."

■ Brian

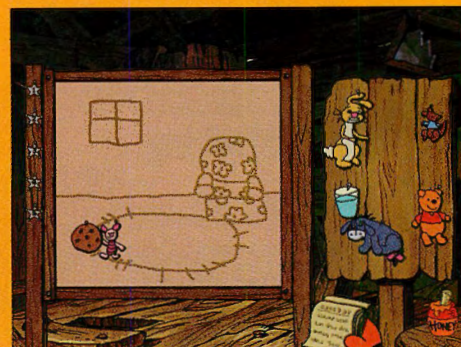
**DISLIKES:** "You can't design your treehouse with things." ■ Daniel

"When you went in a direction, it seemed like you went in another direction, and you ended up in the same place." ■ Marc

**SOUND ADVICE:** "All I would improve are the instructions."

■ Amanda

**FINAL REPORT:** Sweet games teach kids to read but may induce severe honey cravings.



KIDS LOVE WINNIE the Pooh, and so will you.

## What the Adults Thought

If we learned anything from toying with this month's kiddie crop of games, songs, and typing drills, it's that, contrary to popular belief, one bad apple does *not* spoil the whole barrel. Take Panasonic, for example. The software division of the hardware superpower recently released four new titles in its Learning Ladder series, two of which are reviewed in this issue—one we hated, the other we loved.

Alphabet Adventure With Digby & Lydia, a one-trick pony with a limp imagination, crude graphics, amateur actors, and mercifully brief animations, bombed with the adults and the kids. Multiplication Tour With Spike & Mike, however, charmed all generations with its fresh rock tunes, arcade-style math games, and creative sound sampling "studio" recording sessions.

Unfortunately, both Alphabet Adventure and Multiplication Tour look equally exciting from the shelf, a nasty trap for unsuspecting parents who haven't done their homework. As more kids turn from books to computers for their educational needs, parents will no longer be able to simply flip through a few pages in the store before deciding which book to buy. Before investing children and money in unfamiliar software products, parents should check out demos, read reviews, and consult with other parents. After all, you really can't judge a software program by its box. —Nikki Echler





Introducing...

# MacAddict Network

## The One Stop for Mac Fanatics

It's easy to get lost on the Internet. There is so much information, how do you find what you really need?

Finally, there is one place that you can go to satisfy all of your needs as a MacAddict. From news to reviews, from games to graphics, from troubleshooting to Rhapsody, you can feed all of your Mac cravings with the MacAddict Network. MacAddict has brought together the best Mac websites in one convenient location.

You can get there by going to **Macaddict.com** and clicking on the MacAddict Network icon to get a list of our affiliate sites.

So when you're looking for the most comprehensive Mac information available all in one convenient location or when you want to advertise your product to the most active Macintosh users, come to **Macaddict.com** first.

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[www.practicalmac.com](http://www.practicalmac.com)  
[www.evangelist.macaddict.com](http://www.evangelist.macaddict.com)

#### AFFILIATE SITES

##### COMPREHENSIVE MAC NEWS

MacCentral  
[www.maccentral.com](http://www.maccentral.com)  
MacSurfer  
[www.macsurfer.com/news/](http://www.macsurfer.com/news/)

##### GAMES

Inside Mac Games  
[www.imgmagazine.com](http://www.imgmagazine.com)

##### TROUBLESHOOTING

The Complete Conflict  
Compendium  
[www.quillserv.com/www/c3/c3.html](http://www.quillserv.com/www/c3/c3.html)

##### CURRENT VERSIONS OF MAC SOFTWARE

Version Tracker  
[www.versiontracker.com](http://www.versiontracker.com)

##### NEWTON INFORMATION

The Newton Update  
[www.newtoninfo.com](http://www.newtoninfo.com)

##### THE MACINTOSH E-ZINE

AppleJedi  
[www.saracen.com/applejedi.html](http://www.saracen.com/applejedi.html)

##### FREWARE ICONS

Iconfactory  
[www.iconfactory.com](http://www.iconfactory.com)

##### RHAPSODY AND MAC OS INFORMATION

Rhapsody Information  
[rhap.pcreations.com](http://rhap.pcreations.com)  
Daily Mac OS Update  
[home.earthlink.net/~mdw83](http://home.earthlink.net/~mdw83)

##### WHO MAKES WHAT—AN INDEX OF MAC AND MAC-COMPATIBLES

The Macintosh Guidebook  
[www.everymac.com](http://www.everymac.com)

For advertising information across the network, please contact  
Camilla Colegrave, Advertising Manager, MacAddict Network  
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# make a Warcraft II scenario

Eight easy steps to a brain-busting PUD in no time flat.



FIND A  
DEMO OF  
Warcraft II  
on the  
super-phat  
Disc.

**S**o you've gone through all the scenarios in Warcraft II, Beyond the Dark Portal, and even the third-party Total War collection. While you're jonesing for Blizzard Entertainment's next adventure, Starcraft, challenge yourself by making your own scenario. First decide whether to make a single-player or multiplayer

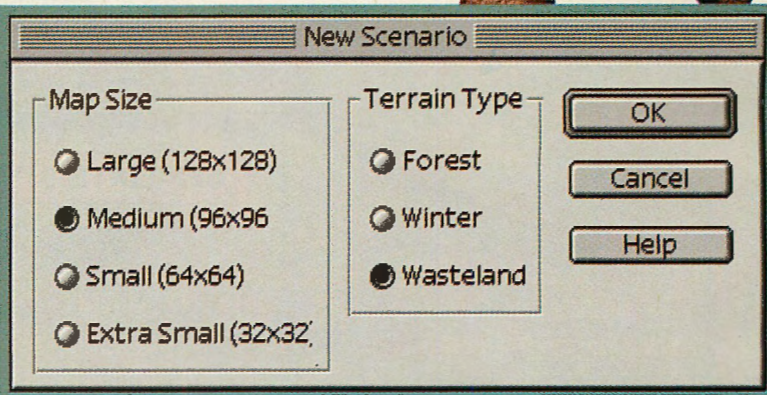
game. We recommend a single-player game as your first attempt because you can test its playability easily on yourself. As you refine your skills, you'll discover what *not* to make your friends sit through when you later test your multi-player scenario. —Kathy Tafel



## STEP 1 Make a New Document

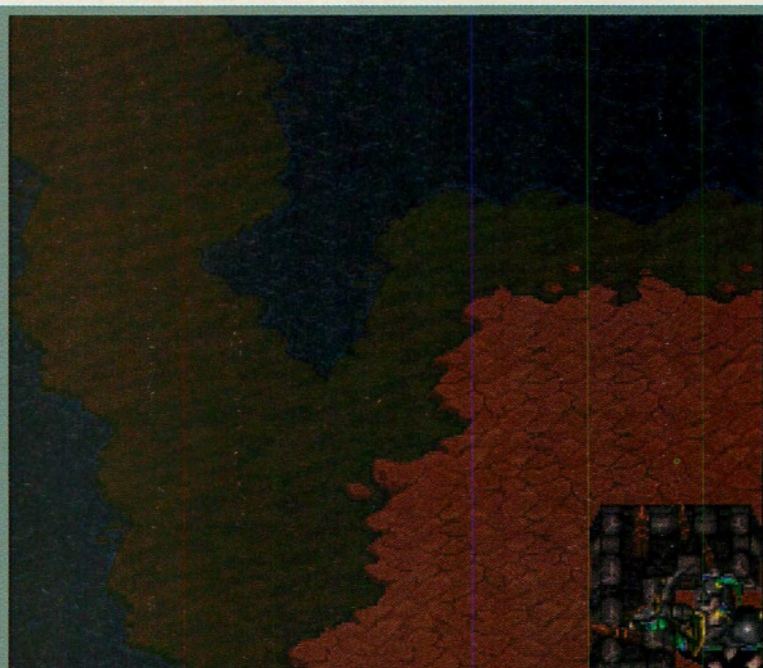
To start, you need a new document. Choose a size and landscape type. It's hard to make a challenging 64-x-64-tile game, so go right to the next size (96 x 96 tiles). Although the snow scene is just too cute, we prefer the skeletons of the wasteland.

IT'S MORE  
FUN to  
choose a  
medium or  
large map.



## STEP 2 Set Scenario Goals

The goals you set for your scenario determine the way you paint your landscape. If you make a maze, for instance, you don't need to worry about resources, but you do need to make lots of dead ends, traps, and reinforcement troops to rescue. In sea-oriented scenarios, you need to provide plenty of oil patches and wood for shipbuilding. On land, you can start out simple, then work your way up to pitting full-scale castles and armies against each other. In our scenario, a human starts in the lower left, fighting three Orcish armies to rescue two nonplaying characters (NPCs) before reaching the circle of power in the upper right corner.



A KNIGHT IN SHINING ARMOR awaits a fair maiden's rescue. Yes, that's right, *she's* rescuing *him*.



## STEP 3 Split Land With Water

Creating a Warcraft II PUD—scenarios are commonly called PUDs, from the .pud file extension used in the PC version—is just like using a paint program. Your brush becomes the different landscape features and player units, so when you click and drag, you're actually painting trees and farms. Once

you've figured out how the land should look, just pick the landscape feature to apply with your brush. Start with lots of land. Make some rivers or land bridges. Add enough trees so that players can build things, unless you give them enough wood at the beginning of the game. In our scenario, we blocked off the enemies so that our human player has to deal with only one Orcish horde at a time.



AS IN THE GAME, use the Mini Map to navigate.

## STEP 4 Add Filler

Big, plain plains are boring. Use filler tiles to add skeletons, grass, critters, and "night" patches. My odd sensibilities dictate that a patch of grass should have some critters grazing on it.



THEY MILL AROUND looking at the grass, but do they eat it? Nope.

how to

## Seven More

# Toolz of the Trade

Transform the map editor's toolbar into a floating palette by clicking on a clear gray area (anywhere buttons aren't) and dragging the cursor out of the toolbar area. All these

commands are available from the menu, but they're much easier to use as buttons. The toolbar contains all your basic landscaping needs:

### 1. THE UBIQUITOUS NEW,

Open, and Save buttons. Closing the current PUD quits the editor.

### 3. THESE THREE BUTTONS DETERMINE

whether your tile brush paints with plain or filler squares. Filler tiles are squares with skeletons or signs or patchy grass in them, and they help to break up the monotony of plain tiles. The Random button (far right) randomizes the output.

### 5. THE MAGNIFYING GLASS

doesn't zoom in. With it, you can select objects on the map such as gold mines and peons. You can't select trees or rocks.

### 2. MYSTERIOUSLY LABELED

Day and Night, these buttons determine the shading of the current tile brush, but they work on only some tile types. Use the Night button to create darker shaded tiles. Be careful near water and trees: The darker tiles cut a wide swath to generate the proper shading.

### 4. THE SIZE BUTTONS

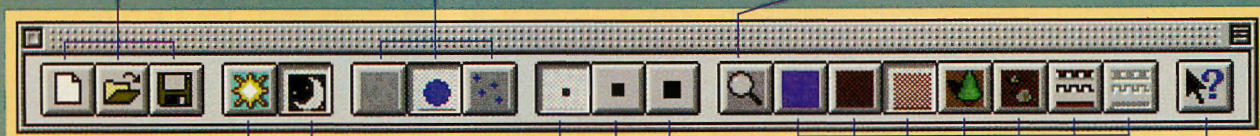
constrain the size of your brush. Use the 5-x-5 tile size to paint the general landscape features, then use the 3-x-3 and 1-x-1 buttons for detail work.

### 6. THE REST OF THE BUTTONS

are the landscape brushes. You can paint water, ground that a player can't build on, ground that a player can build on, trees, rocks, and human and Orc walls. Depending on the type of landscape you choose, the ground will be mud, grass, or snow.

### 7. PROGRAM HELP

is the final button in the bar.





## STEP 5 Set Starting Conditions

how to

Use the Player Properties dialog box to designate the kinds of players in your game. For each of the eight players, choose the race (human or Orc), the controller (human player, computer, or passive or active rescue), and the tactics of the computer

players (land attack, air attack, sea attack, or passive). Although you can't make it a scenario objective, as in the campaigns Blizzard provides, you can assign players to be units that need to be rescued.

**PLAYER 1** Our human player gets to be human.

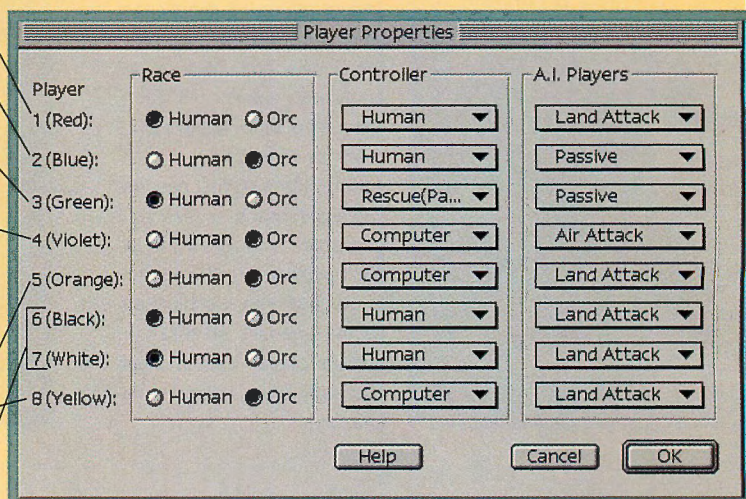
**PLAYER 2** This player's sole purpose is to provide blue walls around Player 3's units.

**PLAYER 3** We'll use this player to set up two NPCs to be rescued.

**PLAYERS 4-8** The rest of the players are Orcish enemies controlled by the computer. The violet player is physically blocked by trees from the human player, so we made its objective an air attack. If instead it were set to mount a land attack, it would just pool up its units against the trees nearest the human player.

**PLAYER 5 & 8** The orange and yellow players will attack by land.

**PLAYER 6 & 7** We don't like the black and white, so we skipped to yellow. (The black doesn't show up well on the Mini Map, and white is boring.)



## STEP 6 Populate Your World

Next, give each player a starting point (the x and o) and a gold mine (unless you're cruel). Each player needs at least one peon/peasant, or it can't build anything. Because our scenario has a one-on-three imbalance, we gave the human a big head start with a few buildings and army units.

- 1.) We gave the closest Orc a town hall and a few farms.
- 2.) The yellow Orcs get three peons only.
- 3.) The Orcs farthest away get only one peon.
- 4.) This ensures that the three hordes can't mob the human all at once.



AS I LEARNED FROM BLIZZARD'S Tip o' the Week, farms are a great barrier—they've got 400 hit-points, and you can put towers behind them. The humans may actually have too great an advantage.





## STEP 7 Menu Mayhem

To paint these objects, use the Player menu to select the player (color), then the Tools menu to choose which building or unit your brush becomes. As you refine your skills, you can edit more options, but these will get you started.

**Player**

- ✓ Player 1 (Red)
- Player 2 (Blue)
- Player 3 (Green)
- Player 4 (Violet)
- Player 5 (Orange)
- Player 6 (Black)
- Player 7 (White)
- Player 8 (Yellow)

Map Properties...

Player Properties...

Starting Conditions...

Unit Properties...

Upgrade Properties...

USE THIS MENU to toggle between players.

**Tools**

- ✓ Select
- Map Brush ▶
- Human Start Location
- Human Air ▶
- Human Land ▶
- Human Water ▶
- Human Buildings ▶
- Orc Start Location
- Orc Air ▶
- Orc Land ▶**
- Orc Water ▶
- Orc Buildings ▶
- Gold Mine
- Oil Patch
- Critter
- Circle of Power
- Dark Portal
- Runestone
- NPC's ▶

**Peon**

Grunt

Troll Axethrower

Ogre

Catapult

Goblin Sappers

Death Knight

THE PLAYER PROPERTIES dialog (Step 5) determines whether the Orc or human items are active or grayed out.



To edit more of the Warcraft scenario file than you can with Blizzard's editor, use Brett Wood's PUD Master available at <http://www.students.uiuc.edu/~bwood/PUDMaster.html>.

how to

## STEP 8 Test Your Scenario

Now comes the fun part. Once you've placed all your characters, you need to make sure they're properly balanced and that when the computer players attack the human player, they have decent odds of winning. Our scenario originally cut off the yellow Orcs from the human with a stand of trees, but the dumber-than-dirt Orcs couldn't see the forest for the trees, so we had to chop a path for them.

Another way to slow or speed a player's production is with wily placement of gold mines and town halls: The farther away the hall, the longer it takes for the player to collect gold. Also, if you place a mine near trees, sometimes the peasants/peons will walk the long way around the mine. When you're testing, watch how efficiently the peasants/peons gather resources.

Finally, you want to see whether the computer opponents are building properly, so you must either give yourself a zeppelin from which to watch them, or turn off fog of war.



THIS CHANNEL LETS the yellow Orcs attack the humans. Without it, they line up against the trees, waiting for some miracle to obliterate their obstacles.





# how to use Web style sheets

You, too, can make spiffy layouts that download in seconds using just text.

**H**ow much would you pay to apply advanced formatting to every element on every page of your Web site with just one set of tags? Don't answer yet! You also get pixel-by-pixel placement of text and pictures, control over fonts and colors, and graphics-like control over type. Wait! There's more! We'll also throw in all the secrets of the universe! *Now* how much would you pay?

No, it's not a new, expensive page creation tool from a European startup company: It's Cascading Style Sheets, a set of standards that let

average Webmasters like you and me use text tags to create pages with lots of control over type, color, and layout. Style sheet standards have been around for a few years but without any support in browsers. That's finally changing, bringing some true page layout capabilities to HTML Web pages. As both major browsers begin to support style sheets over the next few months, you'll see more and more people using style sheets. So throw away your Ginsu knives, here's the *MacAddict* style sheet primer. —Joseph O. Holmes



## What the Heck Are Style Sheets, Anyway?

If you get the impression that style sheets are like the styles in a word processor, you're right. In a word processor, you can create a group of formatting choices. Say you've created a style called "Heading." It's 18-point Helvetica Black with no indentation and a space before the paragraph. With a single keystroke or menu selection, you can apply the style to any paragraph. Instantly, the text in the paragraph is 18-point Helvetica Black, the paragraph has no indentation, and there's a space before it.

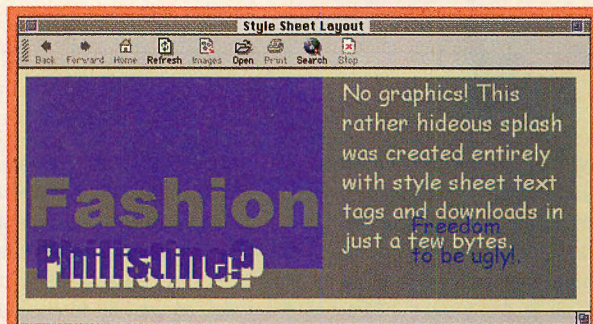
HTML style sheets are similar. They use a special set of text tags and let you create groups of formatting characteristics that you can apply all at once to elements in your pages. A style sheet specifies exactly what formatting to apply and to which HTML element—headings, paragraphs, body, and so on. The style is applied consistently to every occurrence of that element on that page, or even across all the pages on your site. Also, you can change the look of all your pages simultaneously, just by altering a single style tag.

## Page Layout at Last

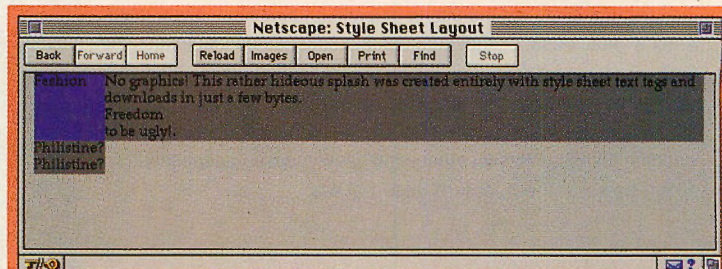
Here's the best news of all: The style sheet standards include formatting options that we've only dreamed about until now. Pixel-by-pixel placement of images and text. Text alignment and indentation. Fonts by family, size, color, and style. Background color. Finally, unlike other promising technologies such as Adobe Acrobat, style sheets are a truly bandwidth-friendly solution. Since everything is done with text tags, style sheets can imitate graphical headlines but use just a fraction of the bandwidth requirements of a .gif or .jpg file.

So what's the drawback? As of this writing, only Microsoft Internet Explorer 3.0.x supports style sheets, though Netscape Communicator (the successor to Navigator 3.x and in beta testing as we go to press) also supports them. Remember, too, that even when both major browsers support style sheets, you'll still have to take into account the millions of people using older browsers or other browsers such as Mosaic. Fancy style sheet layouts can be almost indecipherable to a browser that can't read style sheets. (See examples at right).

For the near future, you can practice fancy tricks, but your pages should stick to styles that look good in both old and new browsers. This means you can mess with font families and colors and the like, but restrict fancy stuff to pages where only style-savvy browsers are invited.



**USING STYLE SHEETS**, you now can perform real page layout. Unfortunately, you now also can create very ugly layouts.



**DARE TO USE** style sheets only if you can live with some people seeing this view.



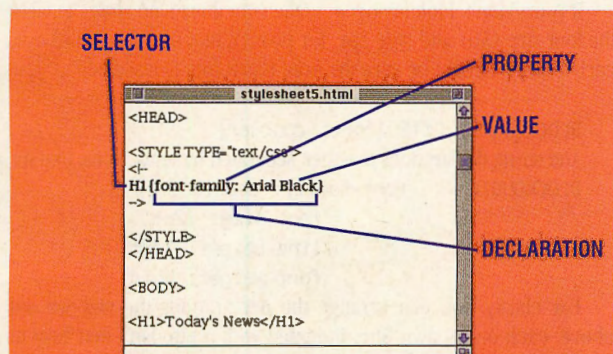
# Style Sheet Basics

## Building Blocks

The most basic building block of a style sheet is the *rule*. At its simplest, a rule is nothing more than a line of text on your HTML page, a line which tells your visitor's Web browser that one element of the page—a header, the body, the BLOCKQUOTE, for example—should take on certain formatting, such as fonts, font sizes, colors, and spacing. Here's a very simple rule—and notice right now that style sheets use curly braces rather than the familiar brackets used in HTML:

```
H1{font-family: Arial Black}
```

This rule tells a browser that every level-one heading, H1, on your page should be displayed in the font family Arial Black. The first part of a rule, which specifies the element of the page that is to be formatted, is called the *selector*—in the example above, it's H1 or a level-one heading.



**YOU'LL NEED TO LEARN** some new jargon and some new tags when using style sheets.

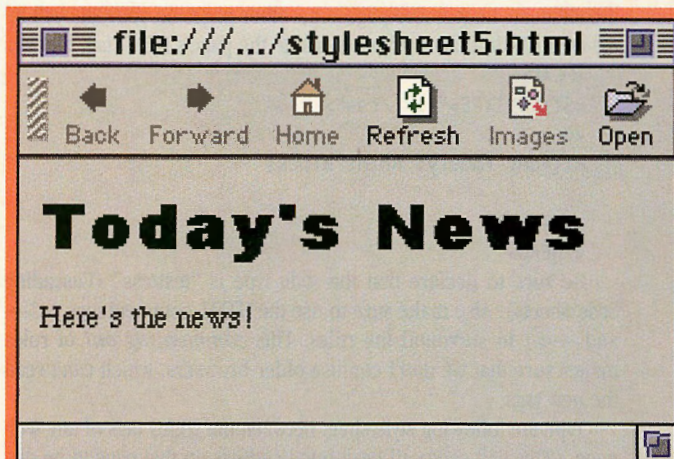
The rest of this rule, the part inside the braces, is known as the *declaration*—{font-family: Arial Black}—and that's where the rule specifies which *property* is to be set to which specific *value*. In our example, the property "font-family" will be set to the value "Arial Black."

When you specify a font, you can—and should—list alternatives, including a font that's likely to be found on most visitors' computers. List the alternatives separated by commas, and always include a generic family at the end, in case your visitor has none of your specified fonts. The officially recognized generic families are serif (for example, Times), sans serif (Helvetica), cursive (Zapf-Chancery), fantasy (Western), and monospace (Courier).

The rule will resemble the following:

```
H1{font-family: "Comic Sans", helvetica, sans-serif}
```

Note the quotation marks around Comic Sans above. When you list a font that includes white space—that is, a font name made up of two or more words—it helps to put the name of the font in quotation



**OUR STYLE SHEET TELLS** the browser to display the font Arial Black in this heading.

marks. Your browser will read it correctly in more circumstances.

Here are some of the most common properties and values currently supported by Internet Explorer 3.0:

- font-family (Helvetica, serif)
- font-style (italic)
- font-weight (bold, bolder, lighter)
- font-size (in points, pixels, percentages, and so on)
- line-height (in points, pixels, percentages, and so on)
- text-align (left, right, center)
- color
- margin-top, margin-left, margin-right (in pixels, inches, centimeters, points, and so on)
- text-decoration (underline)

The official Cascading Style Sheets recommendations can be read at <http://www.w3.org/pub/WWW/TR/REC-CSS1>. Be sure to check Case Western Reserve University's list of the specifications, which are *not* supported in Internet Explorer 3.0 for the Macintosh, at <http://www.cwru.edu/lit/homes/eam3/css1/msie-css1.html>.

You can apply style sheets to various elements of the page, at the "block" level—that is, to elements that cause paragraph breaks such as headings, paragraphs, and dividers—as well as to elements at the "text" level—for example, to anchor, bold, italic, and emphasis tags.

Now let's put an actual rule on an actual Web page.

## Hot Tip:

**Don't worry about the spaces that surround the colon. If it looks clearer to you, include spaces as you like. All of these work fine:**

```
H1{font-family:Arial Black}
H1 {font-family: Arial Black}
H1 {font-family : Arial Black}
```

## What Fonts Are These?

A visitor can see the fonts you've specified only if those fonts are installed on your visitor's computer. That's why you should pick commonly available fonts or provide a pointer to free downloadable fonts such as those that Microsoft provides specifically for style sheet users (<http://www.microsoft.com/truetype/free.htm>). The company also offer examples and advice for fonts and style sheets on the Web. Check out the style sheet pages at <http://www.microsoft.com/truetype/css/gallery/entrance.htm>.



**SOME OF THE FREE FONTS** from Microsoft.



## Where Do Rules Live?

Rules and other style information usually belong inside a pair of HTML style tags: `<STYLE>` and `</STYLE>`. That style information can be put in several places, but for now, let's apply our style to all the elements on just one page—no other pages on your site will be affected. To do that, we'll put it inside the page's HEAD tag, like so:

```
<HEAD>
<STYLE TYPE="text/css">
<!--
H1{font-family: Arial Black}
-->
</STYLE>
</HEAD>
```

Be sure to declare that the style type is "text/css" (Cascading Style Sheets). Also make sure to use the HTML comment tags (`<!--` and `-->`) to surround the rules. This *commenting out* of rules makes sure that we don't confuse older browsers, which can't read the new tags.

Type the following style sheet between the HEAD tags of any Web page. (This will cause all level-one headings on that page to be displayed in the Arial Black font, at 26 pixels high, and in red.)

## Compact Your Code

You can list as many rules as you like:

```
H1{font-family: Arial Black}
H2{font-family: Arial Black}
H3{font-family: Arial Black}
```

But you'll make your style sheets much more compact and readable by grouping selectors and declarations. String selectors together, separated by commas, like this:

```
H1, H2, H3 {font-family: Arial Black}
```

Another example:

```
<STYLE TYPE="text/css">
<!--
H1{font-family: Arial Black; color: red; font-size:
36px}
-->
</STYLE>
```

The headers will look something like this in Internet Explorer:



If yours don't, look for typos, make sure there's no space between the font size (36) and type (px, for pixels), and be sure you've used curly braces. Finally, be sure the Arial Black font is installed.

```
BLOCKQUOTE, CITE {font: courier}
And string declarations together, separated by semicolons, like so:
BLOCKQUOTE {font-family: courier;
font-size: 12pt;
line-height: 14pt;
font-weight: bold}
```

For clarity, you can arrange the declarations the way we did above, each on its own line, indented with a tab. Isn't that easy to read? You may combine both methods, thus grouping both selectors and declarations.

## Contextual Selectors

Finally, you can specify formatting for certain elements

whenever they occur *within* another style. Do this by listing the elements separated by white space, not a comma.

Here's an example. Let's color all emphasized text (EM) red whenever the emphasis appears in a level-three heading (H3) but *not anywhere else*.

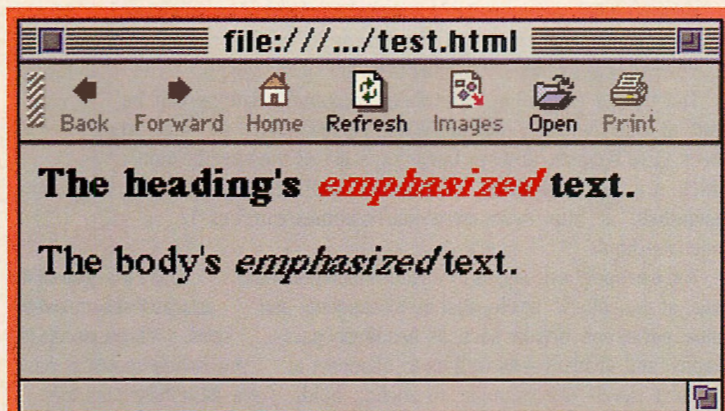
Here's the rule:

```
H3 EM {color: red}
```

No emphasized text on your page is going to appear red unless it appears inside an H3 set of tags.

Now you have almost all the basics you need to build simple style sheets on a page. Next month we'll look at some advanced topics, such as precise pixel-by-pixel margin settings, which we'll use to create really cool graphics-like text similar to the pages at the top of this month's column. Have fun experimenting!

Joseph O. Holmes, aka Professor Web, would love to hear your tips and questions on this subject or any other Webmaster topic. Address your email to [professorweb@pobox.com](mailto:professorweb@pobox.com), but please remember, he can't personally reply to every message.



TRY THIS! Specify special formatting for elements that occur within another style. Here, the emphasized text is treated differently in heading style and in body style.

## Color Equals Destiny

The official suggested list of style sheet colors is aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow, based on the lovely (cough) Windows VGA palette. Individual browsers may support more colors. Microsoft Internet Explorer, for example, also supports light blue and dark blue, orange and dark orange, dark red, light yellow, dark green and light green, and light gray, among others.



DIFFERENT BROWSERS may support different colors.



# Introducing...

## the MacAddict Collection

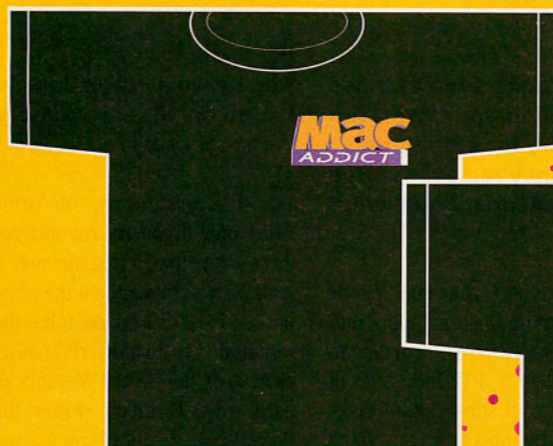
No self-respecting Mac addict should be without these essentials. These items are so cool that even your misguided PC friends will want to wear them. In fact, why not buy one for them as a gift?

### MacAddict T-shirt

"It's not for everyone"

- short sleeve \$13
- long sleeve \$18

M, L, XL  
(100% cotton)



**FRONT**



**BACK**

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backing



**FRONT**



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# ask us

## your questions

We answer all of your technical questions, no matter how simple or complex.



**CHECK OUT  
NETFINDER,  
Mac OS  
Purge, and a  
trial of Claris  
Emailer on  
The Disc.**

**Q** Over the years, I've collected quite a few of those freebie AOL and CompuServe sign-up disks. Are these disks OK to reformat and use for storing data? Is it safe to assume that because they're sent out free by the jillions they might be of substandard quality for everyday use?

**A** If it seems you can't open a magazine, check your mailbox, or eat an airline meal without an America Online disk dropping into your lap, you're right. Those buggers are everywhere. According to the *San Francisco Chronicle* (March 21, 1997), PTP Industries of Baltimore mailed out roughly 150 million trial subscription disks for AOL since August 1994. That's enough floppies to form a stack 307.765 miles high, or the equivalent of 1,117.6 Sears Towers. Laid end to end, those AOL disks would measure 8,286 miles, enough to encircle Earth's moon 1.22 times. You could use the disks to retille the floor of the Pentagon (the world's largest office building) 3.45 times. Put another way, those disks would form a cube 51.7 feet on a side. And assuming those were all high-density floppies, they could hold 202.27 terabytes of data. Oh, and to answer your question, feel free to reformat the disks and use them as you would any other floppy—we've found the AOL ones to be as reliable as the standard-grade disks.

**Q** I have a Performa that came with an internal modem. How do I upgrade to a faster modem?

**A** You could remove the existing internal modem and replace it with a faster one, but I wouldn't go that route. I'd buy an external modem, as they are far more common and versatile. Personally, I've always been a big fan of modems from Global Village Communication (800-736-4821 or 408-523-1000, <http://www.globalvillage.com>), but whatever model you choose, I suggest getting as fast a modem as you can afford—a 33.6Kbps modem is plenty fast; a 56.6Kbps modem should be top-end for at least another year. Once you've made your choice, upgrading is easy.

As long as your Performa has an internal modem installed in its Comm Slot, the modem serial port on the back of the computer is disabled. (That's why Apple placed a small plastic plug over the port.) So the first thing you must do is carefully remove the internal modem and place it in an antistatic bag for safekeeping. Using a penknife, remove the plastic plug covering the modem serial port. Connect your external modem's serial cable to the modem port, take the phone line that was going into the internal modem and plug it into the external modem, and you're done with the hardware installation. All that remains is to install the software that came with your modem, then adjust the communications settings of the online software you use.

**Q** I have a PowerBook with 32MB of memory. Should I turn on Virtual Memory as Apple suggests, or is it unnecessary?

**A** I suggest turning on Virtual Memory in the Memory Control Panel only if you try running an application and the Mac tells you there's not enough free memory. The benefit of Virtual Memory is that it allows you to augment the physical memory in your computer with unused hard disk space. It has the added benefit of lowering memory requirements for PowerPC-native applications. But if you have sufficient RAM, all Virtual Memory does is make the Mac sluggish: The hard drive is much slower than solid-state memory; and on a PowerBook, the more you use your hard drive, the faster your battery will drain. If you don't have enough memory to run all the programs you like simultaneously, I recommend buying some real memory (prices are at historical lows) or RAM Doubler from Connectix (800-950-5880 or 415-571-5100, <http://www.connectix.com>).



There is not enough memory to open "Premiere" (6,612K needed, 588K available).

To make more memory available, try quitting "Photoshop".

OK

**DON'T BOTHER TURNING ON** Virtual Memory unless these types of alert boxes are a common sight.

**Q** I have a question about the icons that appear at the bottom of the screen during startup. Some of mine overlap each other. Is this normal, or is there a way to correct this?

**A** Don't sweat it. Some extensions and control panels have a bit of code in them that tells the Mac to display their icons as they load into memory at startup. (Sometimes you'll have an option for turning off the startup icon in the individual control panels.) However, there's no standard method for displaying these icons, and some programmers get fancy with animated ones. As a result, things can get cluttered as icons overlap, refuse to wrap into higher rows, or stair-step across the screen. It looks unruly, but it's only an aesthetic issue—there's nothing wrong with the loading. Both Conflict Catcher from Casady & Greene (800-359-4920 or 408-484-9228, <http://www.casadyg.com>) and Now Startup Manager from Now Software (800-689-9427 or 503-274-2800, <http://www.nowsoft.com>) have options that ensure an orderly progression of icons at startup.



**Q** Is there any way to have access to email, FTP, and Usenet without having access to the Web? I am 13 years old and my mom won't allow me to go on the Web, but I need email really bad.

**A** One approach is to sign up with an Internet service provider (ISP) but not use a browser. A browser, such as Netscape Navigator, allows you to surf the Web in addition to doing all the other things you want. Or, you can use individual programs for the other tasks. For instance, I recommend using Claris EMailer (800-795-1000 or 408-727-8227, <http://www.claris.com>) for email, Jim Matthews' shareware Fetch or Peter Li and Vincent Tan's shareware NetFinder for FTP, and John Norstad's freeware NewsWatcher for Usenet. These programs are included in the Apple Internet Connection Kit, which is bundled with Mac OS 7.6 (find a trial of Claris EMailer and the shareware NetFinder on The Disc). However, if your mom is concerned about what you might find on the Web, forbidding you to use a browser isn't going to ensure you don't stumble upon offensive material in Usenet groups or at FTP sites. Much better would be to use one of the parental control utilities such as Cyber Patrol (Microsystems Software, 800-828-2608, <http://www.microsys.com>) or SurfWatch (Spyglass, 888-677-9452, <http://www.surfwatch.com>) in conjunction with a browser.

**Q** After installing System 7.5 Update 2.0, I noticed a file called MacTCP DNR in the System Folder. Do I need this file?

**A** Probably not. MacTCP DNR contains resources for TCP applications written for System 6. The Mac OS installer places it inside the System Folder because that's where older applications expect to find it. Although it's unlikely most users will ever need this file, don't bother trashing it. If you do, the Mac will just re-create a new MacTCP DNR file the next time you restart.

**Q** How can I make a floppy disk's window open automatically upon insertion, the way commercial disks do?

**A** Make sure your floppy isn't write-protected, then insert it into your Mac and double-click its icon to open a window revealing its contents. Place the window wherever you want on the desktop, and change its size and View attributes if you wish. When everything's perfect, drag the floppy disk icon to the Trash. This writes the window status information to the floppy before ejecting the disk from the drive. When you reinsert that disk, its windows should appear the same as they were the last time the disk was ejected.

**Q** I've noticed that many new products require a PowerPC chip, which my Performa 630 doesn't have. I've searched through every mail-order catalog and can't find a PowerPC upgrade anywhere. Where can I find this upgrade, and how much will it cost me?

**A** A good place to start a search like this is Apple's Tech Info Library (<http://til.info.apple.com/til/til.html>). After verifying that the Performa 630CD can indeed be upgraded to a PowerPC by swapping logic boards, the trick becomes locating the upgrade. Shreve Systems

(800-227-3971 or 318-424-9791, <http://www.shrevesystems.com>), a well-known vendor of discontinued and refurbished Macs and parts, currently has two options for your Performa 630. For \$399, you can get a refurbished Performa 6200 logic board with a 70MHz PowerPC 603 CPU. For \$200 more, you can opt for a Performa 6300 board with a 100MHz PowerPC 603e. Neither can hold a candle to today's models, but both blow the doors off the 33MHz 68LC040 in your current system and will allow you to run most of the latest programs.

**Q** The fan in my Power Mac 7600 seems to make different amounts of noise over the course of the day. Is this normal?

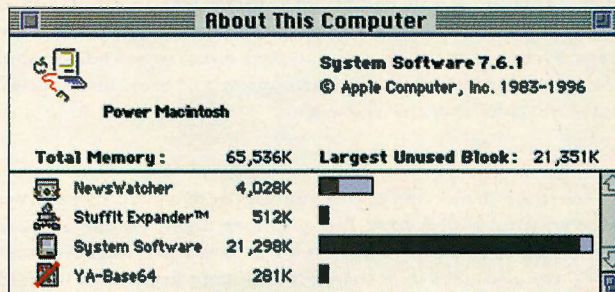
**A** Yup. Excessive heat can harm delicate electronic components, so the power supplies in the Power Mac 7200, 7500, and 7600 contain circuits that monitor the internal temperature of the computer. As the temperature changes, the speed of the fan is adjusted to keep the components cool and comfortable, thereby extending their useful life. When the speed of the fan changes, you may notice a difference in the sound it makes. If the sound is excessive and the unit is still under warranty, you may want to ask Apple to replace or repair your Mac.

### Hot Tip:

When you install a new System, such as Mac OS 7.6, it removes any extensions or items that you no longer need. So if you notice that, say, the PowerPC Interrupt Extension is missing after you install Mac OS 7.6, it simply means that you no longer need it. There's no reason to put it back in your System.

**Q** Sometimes when I choose About This Computer from the Apple menu, the Largest Unused Block of memory isn't equal to the Total Memory minus the amount used by all the open applications. Why not?

**A** Some programs, most notoriously Netscape Navigator, don't always relinquish the memory they were using when you quit. This is called *memory leakage*. One sure-fire way of reclaiming all of the available memory is to choose Restart from the Finder's Special menu, but that's a pain. I prefer launching E. Kenji Takeuchi's freeware program Mac OS Purge (find it on The Disc), which quickly and simply makes available all unused memory without restarting the Mac.



IF THE LARGEST UNUSED BLOCK is smaller than it should be, it's time to run Mac OS Purge.

**Q** Whenever I insert a disc into the CD-ROM drive on my new Power Mac, the drive seems to make strange revving noises. Should I be concerned about this sound?

**A** It's normal if your Power Mac has a fast CD-ROM drive (8X or better). The first generation of CD-ROM drives could transfer data at 150K per second, but the throughput of newer drives is now measured in multiples of that speed. For example, an 8X drive theoretically can



## Who Is the Cat in the Hat?

On a PCI-based Power Mac, open any program that supports drag and drop (such as SimpleText), and type "secret ROM image" without the quotation marks. Select the text and drag it to the desktop to see an image of some Apple engineers. When you're done admiring this photo, just click the mouse to return the screen to normal.



WHO ARE THESE PEOPLE, and what are they doing in your PCI-based Power Mac?

transfer data up to eight times as fast, at 1,200K per second. One way this improved performance is achieved is through higher rotation speeds. Unlike hard drives, which always spin at a constant speed (several thousand revolutions per minute), CD-ROM drives adjust their spin rates as the laser moves around the disc. They also spin at different rates depending on the type of disc in the drive. The faster the drive spins a disc, the more data pass under the laser. The problem is that spinning a disc at higher speeds makes more noise because of the

revving motor. Although this may be annoying, it's perfectly normal.

Usually you hear noise from your CD-ROM drive only when the Mac is reading data discs; audio discs play at a slow speed and shouldn't make any noise other than the music you're enjoying. The printed artwork on some discs may make their weight slightly off-center, resulting in wobbling and vibration at high speeds. According to Apple, this, too, is normal and won't damage the discs or the Mac.

**Q** I like using the Control Strip, but is there any way to place it somewhere other than in the lower left-hand corner of the main screen?

**A** Sure! Option-click the little tab at the end of the Control Strip, then drag the outline of the strip wherever you want. The strip can go on the right, at the top, in the middle, even on another monitor. The only stipulation is that one edge of the strip must be at the edge of a screen. Release the mouse button and the Control Strip appears in its new location.



THE CONTROL STRIP can be repositioned by Option-dragging the right-most tab.

Owen W. Linzmayer ([askaddict@aol.com](mailto:askaddict@aol.com), <http://www.netcom.com/~owenink>) is a San Francisco-based freelance writer and the author of *The Mac Bathroom Reader*. Please submit technical questions or helpful tips directly via email or c/o MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005.



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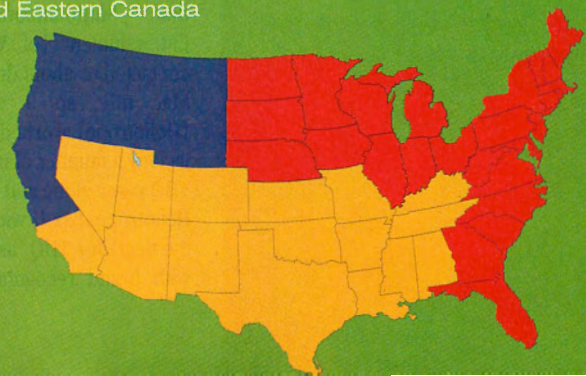
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# powerplay

Heliotrope Studios finally readies release of Pax Imperia sequel: Eminent Domain.

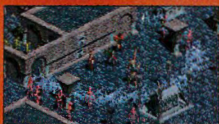
## Teasers



### Civilization II

**COMPANY:** MacSoft  
**CONTACT:** 800-229-2714,  
<http://www.wizworks.com/macsoft>

Civilization is one of the best games ever made—still. The PC world got an upgrade last Christmas, and thanks to MacSoft, we get ours this fall. Civ II uses the same premise as Civ I but with better diplomacy, more units, Wonders of the World videos, and improved graphics.



### Diablo

**COMPANY:** Blizzard Entertainment  
**CONTACT:** 800-953-SNOW,  
<http://www.blizzard.com>

Diablo is a multiplayer role-playing game with a gothic fantasy look. You play one of three character types—warrior, rogue, or sorcerer—as you wend your way through a labyrinth searching for the mad King Leoric's missing son. A group of friends makes gameplay easier, as your weaknesses are balanced by their strengths.



### Gundam 0079

**COMPANY:** Bandai Digital Entertainment  
**CONTACT:** 888-992-9000,  
<http://www.atworld.net>

According to *MacAddict* online editor Mark Simmons (also maintainer of <http://gundam.anime.net>), who has played the Japanese version, the look and feel of Gundam 0079 is incredibly faithful to the original series but with new twists! Be prepared to thrash on giant robots as you wander through the ruins of Las Vegas, among other scenarios. Oh, and don't tune out during the captain's monologue—you'll miss your only chance to snatch your pilot wings and it's Game Over.

FIND QT MOVIES of Gundam 0079 on The Disc.

**H**ey! Remember back in 1993 there was this awesome space-based role-playing game, you could play it against your friends, it was very cool and had swell art, you didn't have to win by whomping people, and you could suborn advisors and steal technology? You could design your own aliens who liked different things, so you could share a solar system with rock eaters? It was Mac-only and a pretty sweet game, except that when you upgraded to a Quadra, it crashed—so you put it away and wondered, "Are they ever going to make a Pax II for my modern Mac?"

Wonder no more. After a development saga that spanned four years, more worthy of daytime TV than a computer magazine, Pax Imperia: Eminent Domain will be published by THQ and should be available this fall. To find out where Pax II has been all these years, and where it's headed, we spoke with Andrew Sispoideis, president of Heliotrope Studios.



Andrew Sispoideis

**MA:** Pax Imperia was developed and published by Changeling. How did Pax II get to THQ?

**AS:** As Changeling, we decided to split into two separate entities:

One would be a development house [Heliotrope], and the other would be a publisher [Changeling—see "PowerPlay," Jul/97, p94, for an interview with Changeling's president, Jeanine DeSocio]. We felt we could better manage our resources by doing that. Simultaneously, Blizzard Entertainment [of Warcraft fame] had contacted us about doing Pax II as both a PC and Mac title, so it worked out really well. [Heliotrope] worked with Blizzard on the project for a number of months [until summer '96]. THQ came along and was interested in acquiring Heliotrope. Pax II was an important element [of the deal] for THQ, as they wanted to ship a title with brand recognition in a reasonable time

frame. As part of the deal, Pax came along with [Heliotrope]. We reacquired the rights from Blizzard and basically became one big, happy family with THQ. Heliotrope is now a wholly owned subsidiary of THQ.

**MA:** How is Eminent Domain different from the original Pax Imperia?

**AS:** Pax II is an order of magnitude bigger—it's a more sophisticated gaming experience. We've taken what we learned from Pax I—the theme and the concept—and now, because of technology—hardware being where it is and operating systems where they are—we can create the game we wanted to create all along. What we've really done is take the original idea and filled every little hole and every little gap and created a really good gaming system. From here we can build other products in the same universe which will be able to hook right into Eminent Domain. Pax II is the first step in the big plan.

**MA:** It looks as though the artwork has undergone a major overhaul.

**AS:** We started to create the art in 2D and then decided that it would make a much more beautiful experience to do it in 3D. We're using LightWave, the same package used in Babylon 5, to create beautiful artwork that's reusable in a lot of different ways. For example, ships have complete rotation in combat, you can see planet surfaces, and cities look like cities. It makes a lot more sense, for the type of game Pax is, to immerse the player by using 3D.

**MA:** What are the different ways you can win the game?

**AS:** Depending on the type of player you are, you can reach your objectives and make an enjoyable experience in a number of ways. Of course,

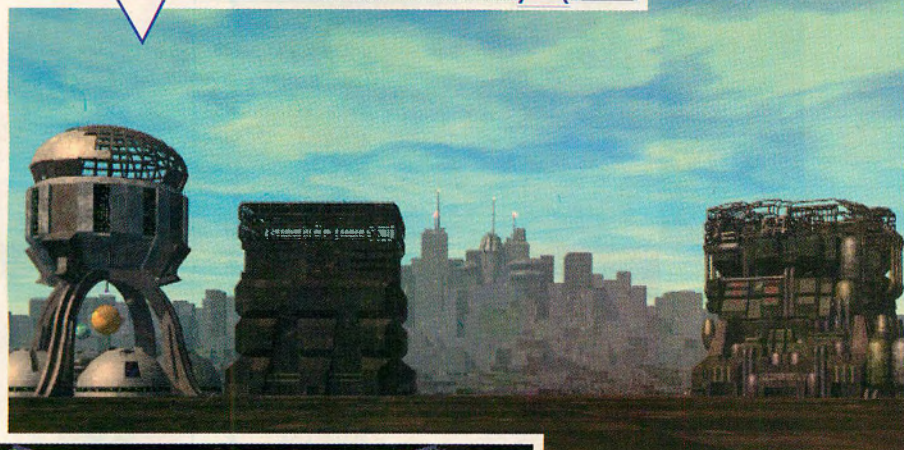
**I'd rather play a game where I win through an intelligent approach, rather than through brute strength.**



AT A GLANCE you can see how your planet is doing. Buildings representing trade and construction get built in the foreground, while the size is drawn in the background. After an attack on your city, you can see the damage done to your buildings.



games

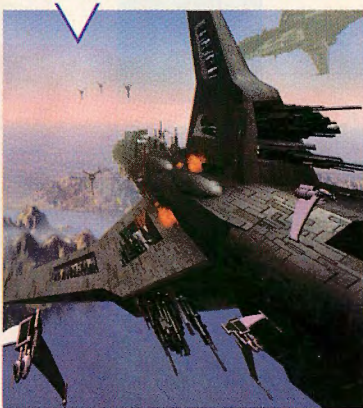


THE GAME'S MAIN CONSOLE gives you access to the galactic map, ship design, technology, combat, and your planets.

there's the obvious—build a huge armada of ships and go out and crush everyone in existence. But the cooler side is that you can have political victories as well. Basically, you find all the players in the game and establish some sort of relationship with them—trade agreements, repair and resupply treaties. When you reach a certain level of alliance, with a majority of players, it's considered a victory. You become the central hub, politically and economically.

There's also the economic victory, in which you control resources and money. The most insidious route is espionage, where you bribe other players' advisors, or steal ships or technology. The ultimate level of espionage is overthrowing the other players' empires. Finally, there's the technological race where you're more advanced than the other players.

THIS GRATUITOUS SHIP FLY-BY shows off the gorgeous modeling work done in LightWave. No wonder it's taken so long!



**MA:** Do you think having multiple objectives will help Pax II appeal to more people?

**AS:** Pax, like SimCity and similar strategy/simulation games, has a reward system that's not based entirely on aggression. That's really important. I don't play games based on [aggression]. I play games like Quake and Duke Nukem, but honestly, I'd rather play a game where I can build something and hopefully win through an intelligent approach, rather than through brute strength. For that reason, Pax will appeal to a broader audience. —Kathy Tafel

**Pax Imperia:** Eminent Domain's anticipated release date is August 1997. Catch a preview at <http://www.paximperia.com>.

## more Teasers

### Master of Orion II: Battle at Antares

COMPANY: MacSoft  
CONTACT: 800-229-2714, <http://www.wizworks.com/macsoft>



Master of Orion II: Battle at Antares (or MoO II, for short) is just like the original but better. There are more races, more tech, more network play, more, more, more. And the maker of all those Orion artifacts you found has returned. Kudos to the original PC development team for writing clean (easy-to-port) code.

### Racing Days

COMPANY: Bandai Digital Entertainment  
CONTACT: 888-992-9000, <http://www.atworld.net>



Racing Days is another title brought to you by the fine folks at Bandai. Oval tracks got you down? This racing game lets you fine-tune your car's look and performance before you take it for a spin on a series of hills, hairpin turns, and high-speed straightaways. Race your friends with modem-to-modem play.

### Starcraft

COMPANY: Blizzard Entertainment  
CONTACT: 800-953-SNOW, <http://www.blizzard.com>



It's Warcraft in outer space! Not really. Besides an isometric view, Starcraft has three races, so you need to use more of a rock-paper-scissors strategy than a checkers strategy. Humans vie against the Protoss and a new, weird race that doesn't like us very much.



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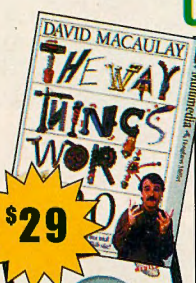
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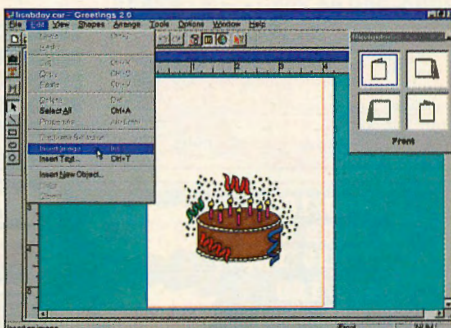
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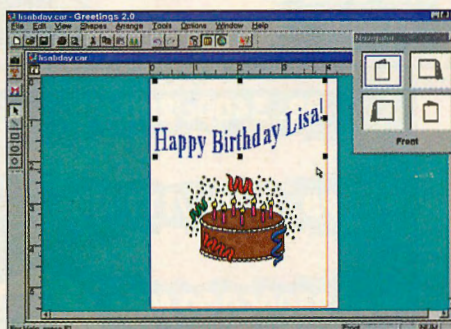
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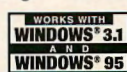
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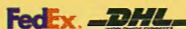


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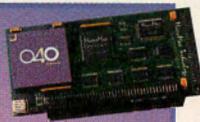
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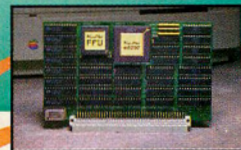
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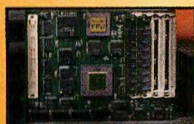
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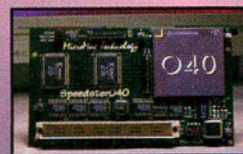


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allowing it to hold its fast cache  
memory often repeated com-  
mand requests. This improvement provided by installing a  
256k L2 Cache where previously there was none increases  
the overall performance of the computer by 15-40%  
depending upon processes running. 512k provides perfor-  
mance that is up to 20% greater. 1mb, up to 30% greater.  
All Cache Cards have a lifetime guarantee!



### Level 2 Cache for 6100 & 611x Series, 7100s, & 8100 PowerMacs

Motorola 256k L2 Cache ..... **\$15**  
(please note 6100/66, 7100/80, and 8100/80,  
100,110 should have this installed stock from the factory)

Special 256k L2/OWC Rocket Acceleration Bundle **\$59**

IDT 512k L2 Cache ..... **\$139**

IDT 1mb L2 Cache ..... **\$199**

### Level 2 Cache for PowerMac 7200/7300/7500/8500 & compatible PowerComputing Clones

256k L2 Cache ..... **\$39**

(Please note 7200/120, all 7300s, All 7600s, and all  
8500s should have this installed stock from the factory)

512k L2 Cache ..... **\$99**

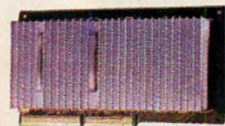
1 meg L2 Cache ..... **\$189**

### High-Performance L2 Cache for 5400s, 6360s, 6400s, 6500s, & Starmax or Starmax based clones

HP 256k L2 Cache ..... **\$99**  
(Please note 6400/180, and all 6500s should have this  
installed stock from the factory)

HP 512k L2 Cache ..... **\$139**

HP 1mb L2 Cache ..... **\$229**



**PLUG-IN  
MORE  
MACINTOSH  
POWER!**

### 604 Processor Daughter Card Upgrades

for 7300/7500/7600/8500/8600/9500 &  
Compatible Clones with upgradeable processor. All proces-  
sor cards run at true speed. 1yr Warranty.

604 120mhz ..... **\$49**

604 132mhz ..... **\$89**

604 150mhz ..... **\$189**

604e 180mhz ..... **\$539**

604e 200mhz ..... **\$649**

604e 233mhz ..... **\$899**

Dual 604e 180mhz ..... **\$999**

Dual 604e 200mhz ..... **\$1299**

### PCI Video Acceleration Cards

for any Apple or compatible with a PCI Slot

#### ATI Technologies

XClaim 3D w/2mb ..... **\$169**

XClaim 3D w/4mb ..... **\$199**

XClaim 3D w/8mb ..... **\$259**

XClaim VR w/2mb ..... **\$229**

XClaim VR w/4mb ..... **\$269**

XClaim VR TV Tuner/Video In-Out Option ..... **\$89**

#### IMS

TwinTurbo w/4mbs ..... **\$399**

TwinTurbo w/8mbs ..... **\$599**

**www.fastermacs.com**

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YOUR MACINTOSH ON OUR WEBSITE AT:**





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## Storage and Memory Products

### Fixed 3.5" SCSI Hard Drives

All hard drives include FWB HD ToolKit PE, over 30mb of free software & System Software installed. External enclosures have a 40 Watt Power Supply, Push Button SCSI ID Selector, Dual SCSI Ports, High Volume Ultra-Quiet cooling fan, & include System SCSI and Power Cables.



INTERNAL EXTERNAL

Quantum 1.2gb FireBall TM 4500rpm 11ms	
w/1yr Warranty -	\$199 \$249
Quantum 2.1gb FireBall TM 4500rpm 10.5ms	
w/3yr Warranty -	\$249 \$299
Quantum 2.1gb FireBall ST 5400rpm 9ms	
w/3yr Warranty -	\$279 \$329
Quantum 3.2gb FireBall TM 4500rpm 10.5ms	
w/3yr Warranty -	\$319 \$369
Quantum 3.2gb FireBall ST 5400rpm 9ms	
w/3yr Warranty -	\$379 \$429
Quantum 4.3gb FireBall ST 5400rpm 9ms	
w/3yr Warranty -	\$449 \$499
Quantum 6.4gb FireBall ST 5400rpm 9ms	
w/3yr Warranty -	\$649 \$699
Quantum 4.5gb Atlas II 7200rpm 8ms	
w/5yr Warranty -	\$749 \$799
Quantum 9.0gb Atlas II 7200rpm 8ms	
w/5yr Warranty -	\$1299 \$1349

IBM 4.3gb UltraStar II 5400rpm 8.5ms	
w/5yr Warranty -	\$499 \$549

Western Digital 4.36gb 7200rpm 8ms	
w/5yr Warranty -	\$659 \$699

### Removable SCSI Storage Devices



Iomega ZIP 100mb	
w/1 Cartridge -	\$189* \$149
Iomega Jaz 1gb	
w/1 Cartridge -	\$339* \$389
Iomega Jaz Bundle Special	
w/2 Cartridges -	\$399* \$449
Nomai 540mb w/1 Cartridge	
(also reads writes Syquest 270s) external only	\$269

\*INCLUDES CORRECT BEZEL FOR YOUR CPU

### CDR Devices

Sony 2x Write/6x Read CDU926S	\$379* \$429
Yamaha 4x Write/6x Read S2X6 CDR	\$639* \$679
Sony CDR/Jaz 1gb Combo	\$799
Yamaha CDR/Jaz 1gb Combo	\$1049

\*INCLUDES CORRECT BEZEL FOR YOUR CPU

### Media

Iomega Zip Cartridges	\$14 Each, \$120 for 10pk
Iomega Jaz Cartridges	\$85 Each, \$790 for 10pk
Nomai 540mb Cartridges	\$49 Each, \$450 for 10pk
CDR 74 Minute Media	\$7 Each, \$60 for 10pk

### IDE 3.5" Drives for Performa/Quadra

630,5200,5300,5400,6200,6300, 6400, & 6500 Series Computers; StarMax, APS, and PowerMac 4400 computers.



Quantum 1.7gb Siirco 4500rpm 11ms	\$199
Quantum 2.1gb Fireball TM 4500rpm 10.5ms	\$219
Quantum 2.5gb Fireball TM 4500rpm 10.5ms	\$239
Quantum 3.2gb Fireball TM 4500rpm 10.5ms	\$259
Quantum 3.8gb Fireball TM 4500rpm 10.5ms	\$319

### 2.5" Hard Drives for PowerBooks

\*SCSI for 100 series (except 150), 500 Series, and Duo Series (Except 2300)



Toshiba 340mb 13ms w/1yr warranty -	\$259
Quantum Daytona 514mb	
14ms w/1yr warranty -	\$319
Apple Rom IBM 1gb 12ms w/1yr warranty -	\$399
SPECIAL!	
•Toshiba IDEs for PowerBook 150, 190 Series, 5300 Series, 1400 Series, and 3400 Series	
1.4gb 4200rpm 12ms 2yr Warranty -	\$239
1.7gb 4200rpm 12ms 2yr Warranty -	\$269
2.1gb 4200rpm 12ms 2yr Warranty -	\$349
3.1gb 4200rpm 12ms 2yr Warranty -	\$549

### PowerBook Memory Products

PowerBook 3400 Series Memory	
16 MEGABYTE	\$139
32 MEGABYTE	\$229
64 MEG	\$449
96 MEGABYTE	\$949
128 MEG	\$1149

PowerBook 1400 Memory	
8 MEGABYTE	\$89
16 MEGABYTE	\$139
24 MEGABYTE	\$179

PowerBook 5300/190/500 Series Memory	
(PLEASE SPECIFY)	
16 MEGABYTE	\$129
32 MEGABYTE	\$199
48* MEGABYTE	\$209
48* MEGABYTE	\$429

\* FOR 5300 ONLY

PowerBook Duo Series Memory (For All Duo PowerBooks)	
20 MEGABYTE	\$179
32 MEGABYTE	\$229
36 MEGABYTE	\$279

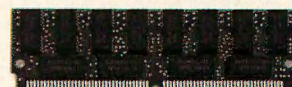
PowerBook Duo 2300 Series Memory	
(For 2300 Duo ONLY)	
16 MEGABYTE	\$129
24 MEGABYTE	\$189
32 MEGABYTE	\$229
40 MEGABYTE	\$289
48 MEGABYTE	\$349

### Memory Products

#### V-Ram

256k Vram Module for LCIII, LCIII, Quadra/Centris	
610,650,700,800 & 840av; PowerMac 7100	
HPV-	\$15 Each
512k V-Ram Module for Quadra 605, Performa & LC	
475/476/477, PowerMac 8100 HPV-	\$25 Each
1mb PCI V-Rams for 7200/7500/7600/8500/8600	
& PowerComputing Systems -	\$35 Each

2mb ATI V-Ram Upgrade for ATI XClaim, VR, and 3D cards -	\$99
2mb V-Ram Module for APS, PowerTools, Motorola	
StarMax & StarMax based clones -	\$49
4mb V-Ram Module for APS, PowerTools, Motorola	
StarMax & StarMax based clones -	\$99



Techworks Authorized Reseller. All Memory has a Lifetime Replacement Warranty. 10-Day Money-Back Satisfaction Guarantee. As an Apple Certified Producer, Techworks Memory meets or Exceeds set Apple Specifications. Power Computing recommends Techworks memory for their entire line of computers!

### DIMMs

168 Pin 5 Volt Fast Page Mode 2K refresh 60ns	
DIMM Modules 5400/6360/6400/7200/7300/7500/7600/8500/8600/9500/9600, certain Umax Models, Apple PCI Dos Compatibility Cards, and All PowerComputing Computers excluding the PowerBase.	
8mb -	\$49
16mb -	\$89
32mb -	\$169
64mb -	\$309

168 pin 5 Volt EDO 60ns Dimm Modules For PowerComputing PowerBase Series & Apple PowerMacintosh 6500 Series (will also work in all machines utilizing 2K refresh memory except 7200)	
16mb -	\$89
32mb -	\$169
64mb -	\$319

168 pin 3.3 Volt EDO 60ns Dimm Modules For Apple PowerMac 4400s, APS, PowerTools, Motorola StarMax and other StarMax based clones	
16mb -	\$99
32mb -	\$189
64mb -	\$379

### 72pin SIMMs

72pin 2K Refresh SIMMs  
For all Apple LCIII, 475,476, 575, 577, 578, 580, 605, 610, 630, 660av, 800, 840av, 61xx, 7100, and 8100 series computers. Also compatible with 6100 Dos Compatibility Card.

4mb 70ns -	\$22
8mb 70ns -	\$44
16mb 70ns -	\$79
32mb 70ns -	\$159
4mb 60ns -	\$23
8mb 60ns -	\$45
16mb 60ns -	\$79
32mb 60ns -	\$159

### 30pin SIMMs

30 pin Simm Modules Non-Parity For Older Macs	
1mb -	\$9.75
2mb -	\$19
4mb -	\$29
8mb -	\$79
16mb -	\$149

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## Power Mac Computers

### PowerMacs

All Apple PowerMacs include Apple Design Keyboard, Mouse, and System Software 7.6 or Greater.

#### Power Macintosh 4400/200

The Power Macintosh 4400/200 computer combines high performance with a streamlined, cost-effective design that takes advantage of industry-standard parts to give you Power Macintosh capabilities at a highly economical price. It's an ideal system for small and medium-size businesses, for home offices, and for running productivity applications in organizations of any size.



**4400/200** 16/2GB/CD/KB/EtherNet - ..... **\$1379**

**4400/200** Business Bundle - ..... **\$1649**

**PowerMac 6500/225, 250, 275, & 300 - ...CALL**

#### Power Macintosh 7300

The Apple Power Macintosh 7300 series combines affordability, high performance, and upgradability\* to provide an ideal system for small and medium-size businesses, for home offices, and for running productivity or multimedia applications in organizations of any size. Based on high-performance RISC technology, the Power Macintosh 7300 series models feature a 180- or 200-megahertz PowerPC 604e processor mounted on a removable CPU card for easy and affordable upgrade to faster cards (as available).



\*Capable of accepting processor upgrades at such time as upgrade products may become available from Apple Computer, Inc. or third-party manufacturers.

**7300/180** 16/2GB/12XCD/256k L2/KB - **\$1949**

**7300/180** Bundle Special w/48mb Memory, 2GB HD, 12XCD, 256k Cache, Apple Design KB, Mouse,

Apple 15AV Display - ..... **\$2499**

**7300/200** 32/2GB/12XCD/256k L2/KB - **\$2299**

**7300/200** Bundle Special w/64mb of memory, 2GB HD, 12XCD, 512k Cache, Apple Design KB, Mouse, &

Apple 1710 Display - ..... **\$3199**

#### Power Macintosh 8600

If your profession demands a high-performance, expandable computer that's optimized to make complex work easy, choose the Power Macintosh 8600/200 system. This high-performance computer includes built-in video-in and video-out capabilities in an innovative new design. It includes features that make it an ideal choice for in-house publishing,



media authoring, and technical applications. And because its processor is mounted on a removable card for easy and affordable upgrade to faster processor cards\* (as available), you can protect your investment for the future. \*Capable

of accepting processor upgrades at such time as upgrade products may become available from Apple Computer, Inc. or third-party manufacturers.

**8600/200** 32/2GB/12XCD/ZIP/256k L2/KB -

..... **\$3099**

**8600/200** Bundle Special w/128mb of memory, 4GB HD, 12XCD, ZIP Internal, Apple Design KB, Mouse &

1710av Display - ..... **\$4599**

#### Power Macintosh 9600

The Power Macintosh 9600/200MP and 9600/233 computers are the top of the line in speed, performance, expandability, and upgradability\*, which is tremendous news for publishers-particularly those who are working with advanced color-as well as for multimedia professionals and engineers. So whether you're involved in publishing, multimedia or engineering-or simply want an incredibly powerful, expandable, and versatile Macintosh computer-one of the Power Macintosh 9600 systems is sure to meet your needs.



\*Capable of accepting processor upgrades at such time as upgrade products may become available from Apple Computer, Inc. or third-party manufacturers.

**9600/233** 32/4GB/12XCD/512k L2/KB - **\$3699**

**9600/233** Bundle Special w/256mb of memory, 4GB HD, 12XCD, Jaz Internal w/2carts, Apple Design KB,


Mouse, & Apple MultiScan 20 Display - ..... **\$6599**

### Refurb PowerMac/Performas


Apple Factory Refurbished Units with 90 Day Warranty



**6290/100** 16/800mb/CD/KB/Mouse - ..... **\$699**

 Apple Factory Refurbished


**6320/120** 16/1.2gb/CD/KB/28.8/TV/Vid/Mouse - ....

 Apple Factory Refurbished ..... **\$899**

The 6320CD is a complete, ready-to-use multimedia system. Packed in one box are the computer (with Apple System 7.5 software already loaded), a color display, a keyboard, a mouse, an internal modem, and a microphone. Also included are more than a dozen home, education, and home-business programs, plus a collection of multimedia reference CDs.




**5400/120** 16/1.2gb/CD/KB/Ethernet/Mouse/15"

Display -  Apple Factory Refurbished ..... **\$1199**

With its state-of-the-art RISC-based processor and advanced multimedia capability, the all-in-one Apple Macintosh Performa 5400 computer is ready to inspire your creativity and boost your productivity. A powerful, convenient system for all your home and office computing tasks.

**5400/180** 16/1.2gb/CD/KB/Ethernet/Mouse/15"


Display -  Apple Factory Refurbished ..... **\$1299**

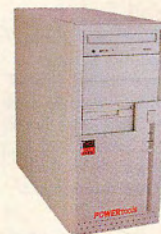
**6400/180** 16/1.6gb/CD/28.8/KB/Mouse - **\$999**

The Apple Macintosh Performa 6400/180 is one of the most powerful, expandable, and easy-to-use multimedia computers you can get for your home. Continuing Apple's multimedia leadership, its robust features and high-quality pre-installed software make it an ideal system on which your whole family can learn, create, and communicate.



**6400/200** 16/2.4gb/CD/256k L2/28.8/KB/Mouse -

 Apple Factory Refurbished ..... **\$1249**



### POWERtools

**PowerTools 4200/200** 604e Base CPU w/System Software 7.6 or greater - ..... **\$1149**

**PowerTools 4200/200** 604e 32/2GB/8XCD/256k L2 Cache/1MB V-Ram/ADB Mouse & KB **\$1779**

**PowerTools 4200/200** 604e PowerBundle 96mb/4GB HD/16X CD/512K L2 Cache/4MB V-Ram, ADB Mouse & Keyboard - ..... **\$2399**

**PowerTools 4200/200** 604e Publishing Bundle 160mb Memory/4GB HD/16X CD/Jaz 1gb Internal w/2 carts/512k L2 Cache/8mb IMS TwinTurbo Video/Apple Extended ADB Keyboard, Apple ADB Mouse II, Viewsonic PT815 21" Display - ..... **\$4699**



### PowerBooks

**1400cs/117** 12/750 - ..... **\$1499**

**1400cs/117** 16/750/CD - ..... **\$1699**

**1400cs/133** ..... **CALL**

**1400c/133** 16/1gb/CD - ..... **\$2799**

**1400c/166** ..... **CALL**

**Duo 2400 Series** - ..... **CALL**



**3400c/180** 16/1.3gb - ..... **\$3449**

**3400c/180** 16/1.3gb/6XCD/33.6 Modem/Ethernet - ..... **\$3999**

**3400c/200** 16/2gb/6XCD/33.6 Modem/Ethernet - .... **\$4399**

**3400c/240** 16/3gb/12XCD/33.6 Modem/Ethernet - .. **\$5499**

..... **CALL**

**3400c/300** 300mhz ..... **CALL**

### PowerBook Accessories:

#### PowerBook Batteries:

Duo Series NiMH - ..... **\$79**

140-180 Series NiCad - ..... **\$49**

190 & 5300 Series NiMH - ..... **\$135**

1400 Series NiMH - ..... **\$109**

3400 Series NiMH - ..... **\$189**

PowerBook Cigarette Auto Power Adapters - .. **\$59.95**

Available for All Apple PowerBooks and Duos. Specify model.





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## Monitors



APPLE 15" AV Multiscan .....\$429



APPLE 1705 Multiscan .....\$629



APPLE 1710 .....\$799



APPLE 1710 AV Multiscan .....\$859



APPLE 20" Multiscan .....\$1599



ViewSonic E641 14" .28dp .....\$239



ViewSonic E655 15" .28dp .....\$339



ViewSonic 17G5 .27dp 1280x1024 .....\$609



ViewSonic 17GA .27dp 1280x1024 .....\$639



ViewSonic 21 P815 .25dp 1600x1200 .....\$1499

Sony CPD200SF 17" .....\$799

Sony CPD300SF 20" .....\$1799

Call for Displays Up to 29"!



## Keyboards

Extended 105 Key ADB .....\$39

Mac Alley 105 Key ADB .....\$59

Keytronics MacPro Plus 105 Keyboard .....\$79

Apple Design Keyboard .....\$89

Apple Extended Keyboard II .....\$139

## Misc Accesories

Replacement Clock/PRAM Battery

3.6v Lithium .....\$9.95

Mac II Series, LC Series, Quadra/Centris Series,  
6100/7100/8100 PowerMacs

Surge Suppressors

Kensington PT20 Portable Power/RJ11 Telephone Surge

Suppressor .....\$29

Kensington Gold 2000 6 Outlet Surge Suppressor .....\$19

Backup Power Supplies

American Power Conversion BackUPS 280VA - ..\$109

Good for Most Desktop Macs

American Power Conversion BackUPS 450VA - ..\$159

Good for Most Tower Macs

American Power Conversion BackUPS 600VA - ..\$259

Good for most WorkStations and MultiProcessor Systems

## Multimedia Powered Loudspeaker System



**Atlantic Technology M105/M110  
BassToaster and Loudspeaker System**  
**50 Watt Sub-Woofer Speaker System**

TOP RATED

**\$99\***

**FOR A TRULY ASTONISHING MULTIMEDIA EXPERIENCE!**

\*with any purchase.  
\$109 purchased alone

Other World Computing is proud to offer new Atlantic Technologies multi-media speaker systems. These systems include the M105 BassToaster subwoofer unit and 2-M110 loud speakers. The loud speakers provide a satellite style system around your desk while the BassToaster can be conveniently placed anywhere. Whether for playing music or for the full effect of today's multimedia software & games, the M105/M110 speaker set provide an unrivaled sonic experience for only \$99!

**With a free 30 day in home trial, how can you go wrong?**

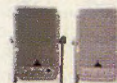
The M105 "Bass Toaster" is a powered subwoofer module with built-in amplification. It is also equipped with a crossover selector that will match the frequency response of virtually any multimedia system. A rugged 45 watt amplifier ensures that the M105 can easily reproduce all the dynamics of the signal source no matter where the subwoofer is located. This internal amplifier powers a single 6 1/2" long throw driver. The driver and the internal amplifier are equalized to match the internal dimensions of the cabinet for superb bass reproduction of any program material.



C-net reviewed this system and listed its retail price at \$269.00!

See its review at: <http://www.cnet.com/Content/Reviews/Compare/Speakers/ss02k.html>

The M110 Loud Speakers are a high quality, dual input, multimedia speaker system in itself. The M110's comes complete with right and left speakers, an external power-adaptor, and two interconnecting mini-plug stereo cables. The speakers are ported to obtain a deeper bass response. The right speaker (the master) contains both of the amplifiers for the system. The left speaker (slave) connects to the right and has only one input jack.



The M110 is fully compatible with any powered subwoofer and the M105 BassToaster will also function by itself or with most third party computer speakers, however as a three piece set, this matched loud speaker/subwoofer system provides an astonishing multimedia experience at a truly affordable price. Also, while supplies last, we will include the M110 directional speaker stands (as pictured) for no additional charge. Separately these stands normally retail for \$29.00.

Other World Price is Regularly \$109.00, but with the order of anything else, you get this system for just \$99.00!

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International: (815) 338-8685

Fax: (815) 338-4332



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15% restocking fee applicable for all returned merchandise.



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## HARD DRIVES



**1.2GB TEMPEST**  
128K CACHE  
4500 RPM  
Internal  
**\$199**

**3.2GB TEMPEST**  
**\$349**  
Internal

**4.5GB ATLAS II**  
**\$749**  
Internal

Quantum							
Description	Model	Access	Interface	RPM	Int	Ext	
1.2GB Tempest	QM31280TMS	10.5ms	Ultra SCSI-3	4500	\$199	\$249	
2.1GB Tempest	QM32100TMA	11ms	Fast ATA-2 (IDE)	4500	\$229	----	
2.1GB Tempest	QM32150TMS	10.5ms	Ultra SCSI-3	4500	\$279	\$329	
2.1GB Stratus	QM32160STS	10ms	Ultra SCSI-3	5400	\$319	\$369	
3.2GB Tempest	QM33200TMA	11ms	Fast ATA-2 (IDE)	4500	\$269	----	
3.2GB Tempest	QM33255TMS	10.5ms	Ultra SCSI-3	4500	\$349	\$399	
3.2GB Stratus	QM33240STS	10ms	Ultra SCSI-3	5400	\$369	\$419	
3.8GB Tempest	QM33840TMA	11ms	Fast ATA-2 (IDE)	4500	\$329	----	
4.3GB Stratus	QM34320STS	10ms	Ultra SCSI-3	5400	\$489	\$539	
4.5GB Atlas II	QM34550ALS	8ms	Ultra SCSI-3	7200	\$749	\$799	
4.5GB Atlas II	QM34550ALW	8ms	UltraWide SCSI-3	7200	\$899	\$979	
6.4GB Stratus	QM36480STS	10ms	Ultra SCSI-3	5400	\$599	\$649	
9.1GB Atlas II	QM39100ALS	8ms	Ultra SCSI-3	7200	\$1399	\$1449	
9.1GB Atlas II	QM39100ALW	8ms	UltraWide SCSI-3	7200	\$1449	\$1529	

Western Digital							
Description	Model	Access	Interface	RPM	Int	Ext	
2.1GB Enterprise	WDE2170S	8ms	Ultra SCSI-3	7200	\$539	\$589	
2.1GB Enterprise	WDE2170W	8ms	UltraWide SCSI-3	7200	\$589	\$669	
4.3GB Enterprise	WDE4360S	8ms	Ultra SCSI-3	7200	\$799	\$849	
4.3GB Enterprise	WDE4360W	8ms	UltraWide SCSI-3	7200	\$849	\$929	

Seagate							
Description	Model	Access	Interface	RPM	Int	Ext	
2.1GB Barracuda 4LP	ST32171N	8.5ms	Ultra SCSI-3	7200	\$579	\$629	
2.1GB Barracuda 4LP	ST32171W	8.5ms	UltraWide SCSI-3	7200	\$629	\$709	
4.3GB Barracuda 4LP	ST34371N	8.5ms	Ultra SCSI-3	7200	\$839	\$889	
4.3GB Barracuda 4LP	ST34371W	8.5ms	UltraWide SCSI-3	7200	\$899	\$979	
4.3GB Cheetah	ST34501N	8ms	Ultra SCSI-3	10000	\$979	\$1029	
4.3GB Cheetah	ST34501W	8ms	UltraWide SCSI-3	10000	\$1019	\$1099	
9.1GB Barracuda 9	ST19171N	8ms	Ultra SCSI-3	7200	\$1539	\$1589	
9.1GB Barracuda 9	ST19171W	8ms	UltraWide SCSI-3	7200	\$1599	\$1679	
23GB Elite 23	ST423451N	8ms	Fast SCSI-2	5400	\$3149	\$3249	
23GB Elite 23	ST423451W	8ms	Fast+Wide SCSI-2	5400	\$3249	\$3349	

IBM							
Description	Model	Access	Interface	RPM	Int	Ext	
4.3GB UltraStar	09J1035	8.5ms	Ultra SCSI-3	5400	\$569	\$619	

TOSHIBA							
2.5" HARD DRIVES							
Description	Model	Access	Interface	RPM	Int	Ext	
810MB TravelStar	MK1926FBV	12ms	2.5" Fast SCSI	4500	\$499	----	

## MEMORY

**32-Bit 72pin SIMMS**

4MB	\$25
8MB	\$45
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32MB	\$179

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16MB	\$89
32MB	\$179
64MB	\$365

**Video RAM**

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1MB VRAM 7200, 7500, 7600, 8500	\$35

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512K 7200, 7500, 7600, 8500	\$125

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4X/6X CD-R w/Toast Pro 3.0	.....	\$769
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270MB	\$57ea	\$56ea	\$55ea
EZ230MB	\$30ea	\$29.50ea	\$29ea
1.5GB SyJet	\$124ea	\$110ea	\$99ea

**Zip Drive Solutions**

**\$149.95**

**100MB**

**Jaz Drive Solutions**

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**1.0GB**

**IOMEGA ZIP DRIVES**

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Zip Drive Internal - all PowerComputing/Umax	.....	\$139

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ClubMac Jaz Drive w/three cartridges	.....	\$469
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Jaz Drive Internal - all PowerComputing/Umax	.....	\$279

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**ZIP MEDIA**

Format	Part#	Qty 1-2	Qty 3-9	Qty 10+
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**JAZZ MEDIA**

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 Cruise Card, 33.6 w/ X-Jack, Cellular Ready..**\$226**  
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8600/200	32/2GB/12XCD/L2/ZIP	2895
6500/300	64/4GB/12XCD/33.6/ZIP	2795
6500/275	64/4GB/12XCD/Creat. Stu.	2749
6500/250	48/4GB/12XCD/33.6/ZIP/SB	2425
6500/250	32/4GB/12XCD/33.6/ZIP/HB	2149
6500/225	32/3GB/12XCD/33.6/ZIP/HB	1849
7600/132	16/1.2GB/4XCD/L2 (R)	1549
7600/120	16/1.2GB/4XCD/L2 (R)	1495
7300/200	32/2GB/12XCD/L2	2285
7300/180	16/2GB/12XCD/L2	1865
7200/120	16/1.2GB/8XCD/DOS (R)	1689
4400/200	16/2GB/12XCD/SM BUS	1645

### Motorola StarMax

3000/180 DT-6S	16MB/1.2GB/8XCD/L2	\$ 1269
3000/180 MT-6S	32MB/2.5GB/8XCD/L2	1410
3000/200 DT-6	16MB/1.2GB/8XCD/L2	1325
3000/200 MT-6G0	32MB/2.5GB/16XCD/L2	2289
3000/200 MT-6S	32MB/2.5GB/16XCD/L2	2125
3000/240 MT-6S	32MB/2.5GB/16XCD/L2	2125
4000/180 MT-6S	32MB/2.5GB/8XCD/L2	1829
4000/200 MT-6	32MB/2.5GB/8XCD/L2	2425
4000/200 MT-6G0	32MB/4.3GB/16XCD/L2	2799

### UMAX Supermac

C600/180	16/1.2GB/8XCD/KEY/28.8	\$ 1279
C600/200	16/2.1GB/8XCD/KEY/28.8	1489
C600/240	16/2.1GB/8XCD/KEY/28.8	1769
J700/150	16/2GB/6.7XCD/KEY/VCard	1789
J700/180	24/2GB/6.7XCD/KEY/VCard	1959
S900/250	Dual Proc. 32/4GB/12XCD	6399
S900/250	32/2GB/8XCD/KEY/VCard	4499
S900/233	32/2GB/8XCD/KEY/VCard	3669
S900/225	32/2GB/8XCD/KEY/VCard	3279
S900/200	32/2GB/8XCD/KEY/VCard	2889
S900/200	Dual Proc. 32/2GB/8XCD	3839
S900/180	32/2GB/8.0CD/KEY/VCard	2699

### Performs

6400/180	16/1.6GB/8CD/Kbd/28.8	\$ 1179
6400/180	16/1.6GB/8CD/Kbd/28.8/15" AV	1675
6400/180	Base Config./15" AV/1500 Printer	1759
6400/180	Base Config./15" AV/2500 Printer	1859
6400/200	16/2.4GB/8XCD/Kbd/28.8	1399
6400/200	16/2.4GB/8XCD/Kbd/28.8/Vid	1829

### PowerBooks

1400C/133	16/1GB/6XCD	\$ 2549
1400C/117	16/1GB/6XCD	2649
1400CS	16/750MB/6XCD	1749
1400CS	12/750MB	1449
3400C/240	16/2GB/12XCD/Floppy	5450
3400C/200	16/2GB/6XCD/Floppy	4419
3400C/180	16/1.3GB/6XCD/Floppy	3875
3400C/160	16/1.3GB	3529

### Workgroup Servers

7250/120	16/2GB/CD Mini Tower	\$ 1625
7250/120	16/2GB/CD/AS	2345
7250/120	16/2GB/CD/Internet	1875

### CD Rom Recorders

Ricoh	6xRd x2WrT CDR w/Toast	\$ 599	\$ 684
Sony	6xRd x2WrT CDR w/Toast	399	484
Yamaha	400 CDR 6x4 w/Toast	899	784

### Dos Cards

Apple	588 100MHZ	\$ 849
Apple	Pentium 100MHZ	799

### Keyboards

Apple	Design Extended Key.	\$ 75
Apple	Extended Keyboard II	135
Radius	Extended Keyboard	49

### Magneto-Optical Drive

Fujitsu	640mb w/1 Media Internal	\$ 479
Fujitsu	640mb w/1 Media External	589
EXPASION BAY	230MB (PB 190/5300)	375
VST	EXPASION HD 640MB (PB 190/5300)	389
Pinnacle	Vertex 2.6 Gig Optical	1399
Pinnacle	Apex 4.6 Gig Optical	1499
OLYMPUS	SYS 230MB External	399
OLYMPUS	POWERVO 2.6GB External	1599

### Modem

Farallon	Netopia (ISDN)	\$ 329
Glob. Vill.	Teleport 33.6	139
Glob. Vill.	PowerPort PC Card	219
Supra	Express Mod. 56E V.34	169
Supra	Express Mod. 56E SP	179

### Monitors

Apple	Multiscan 15" (Refurb)	\$ 289
Apple	Multiscan 15" AV	399
Apple	Multiscan 1705	599
Apple	Multiscan 1710	739
Apple	Multiscan 1710AV	799
Apple	Multiscan 20"	1499
Hitachi	All New Models	Call
Iiyama	All New Models	Call
Mitsubishi	All New Models	Call
NEC	All New Models	Call
Radius	All New Models	Call
Sony	All New Models	Call
Viewsonic	All New Models	Call

### Printers

Apple	Stylewriter 1200	\$ 159
Apple	Stylewriter 1500	199
Apple	Stylewriter 2500	329
Apple	LaserWriter 4/600	799
Epson	Stylus Color 600	289
Epson	Stylus Color 800	419
HP	LaserJet 4MV	2725
HP	Color LaserJet 5M	4939
HP	LaserJet 6MP	890

### Removable Hard Drives

IONEGA	ZIP 100MB Int. w/faceplate	\$ 166
IONEGA	ZIP 100MB External	149
IONEGA	JAZZ 1GB w/ Cart.-built up	359
IONEGA	JAZZ 1GB w/ Cart.-Original	399
SYQUEST	230 MB EY Flyer	239
Syquest	1.5 GB Syjet internal	389
Syquest	1.5 GB Syjet External	459
IONEGA	100mb Zip Cartridges	\$ 16
IONEGA	1Gig Cartridges	83

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Atto	Pci Singel Channel Ultra	\$ 339
Atto	Pci Multi Channel Ultra	796
Remus	Lite	179
Atto	Express Stripe	179
Micro Outlet	4GB Raid Single Channel	2300
Micro Outlet	8GB Raid Single Channel	2575
Micro Outlet	16GB Raid Single Channel	3775
Micro Outlet	36GB Raid Single Channel	7115

### Scanners

AGFA	Arcus II	\$ 1559
	StudioScan IIsi	589
AGFA	Snapshot	289
Epson	Express. 636 Artist	899
Epson	Express. 636 Exec.	725
Epson	Express. 636 Prof.	1699
Microtek	Scanmaker III	1265
Umax	Mirage D-16L	Call
Umax	Astra 600S 300dpi	279
Umax	Astra 1200S 600dpi	489
Umax	Astra 1200S FV Phtshop	659

### Software Specials

Adobe	Illustrator V 6.0	\$ 365
Adobe	PageMaker V 6.5	549
Adobe	Photoshop V 4.0	548
Adobe	Premier V 4.2	487
Connectix	Conflict Catcher 4.0	59
Insignia	Softwindows '95	319
Microsoft	Office V 4.2.1	449
Macromedia	Freehand V 7.0	369
Quark	Xpress V 3.3.2	639

### Newer Technology

MAXPOWER	PCE604-250 OK-CACHE	\$ 1125
MAXPOWER	PCE604-200 OK-CACHE	889
16SC2	ULTRADOCK W/ETHERNET	575
ETHERNET	MAXDOCK FOR DUO 2300-280c	169

### Video Cards

ATI	Exclaim GA 2MB	\$ 229
ATI	Exclaim GA 4MB	325
ATI	Exclaim VR 2MB	220
ATI	Exclaim VR 4MB	249

### Hard Disk Drives

	Internal	External
Quantum Fireball TM 1.2 GB	\$ 229	\$ 294
Quantum Fireball TM 2.1 GB	260	320
Quantum Fireball TM 3.2 GB	310	370
Quantum Stratus 2.1 GB	349	409
Quantum Stratus 3.2 GB	399	459
Seagate Barracuda 2.1 GB Narr	599	684
Seagate Barracuda 2.1 GB Wide	629	729
IBM Ultrastar II 4.32 GB	629	694
Fujitsu Allegro 4.4 GB	725	790
Quantum Atlas II 4.5 GB Ultra	799	864
Quantum Atlas II 4.5 GB Wide	839	899
Seagate Barracuda 4.3 GB Narr	899	964
Seagate Barracuda 4.3 GB Wide	977	1077
Quantum Atlas II 9.0 GB Ultra	1370	1435
Quantum Atlas II 9.0 GB Wide	1370	1470
Seagate Barracuda 9.0 GB Ultra	1769	1836
Seagate Barracuda 9.0 GB Wide	1799	1899
Seagate Elite 23.0 GB Ultra	4449	4549
Seagate Elite 23.0 GB Wide	4549	4649

### Low Priced Memory

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8MB	72 Pin Simm	46
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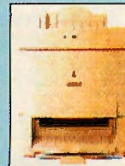


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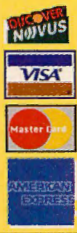
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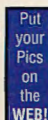
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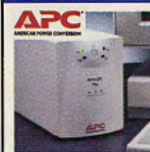
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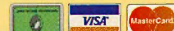
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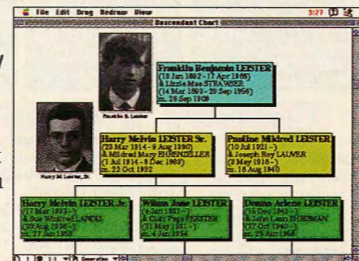
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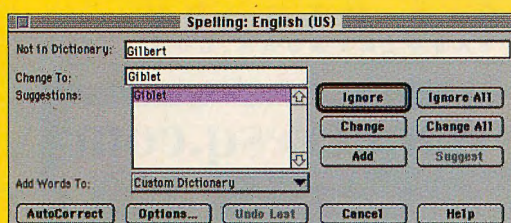


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shutdown

## Gilbert or Gible? You Make the Call

After a pass through Microsoft Word's spell checker, it appears that Apple's head honcho is more of a gible than a Gilbert. No wonder Amelio prefers that everyone just call him "Doc."



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"We veterans of the vast, impersonal world of the PC aren't used to this kind of service—imagine having Mr. Goodwrench call you from the local Chevy dealer to say 'I heard you were having a little trouble with your new car. Mind if I drop by and take a look?'" —John Flanagan, editor and publisher of Honolulu's *Star-Bulletin*, in a note to his readers after a former Apple engineer who had read that Flanagan was having problems with his new PowerBook called him up, came over to his office, and fixed it for him. We think someone just has a crush on John...



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"Two-thirds of the people on the planet die without ever making or receiving a phone call. There are some clear impediments to bringing 100-megabit Ethernet to those people when we can't even get a phone call in to them yet." —Scott McNealy, CEO of Sun Microsystems, waxing philosophic over the future of network computers in an interview with Upside.com (<http://www.upside.com>).

## Trailer Trumps

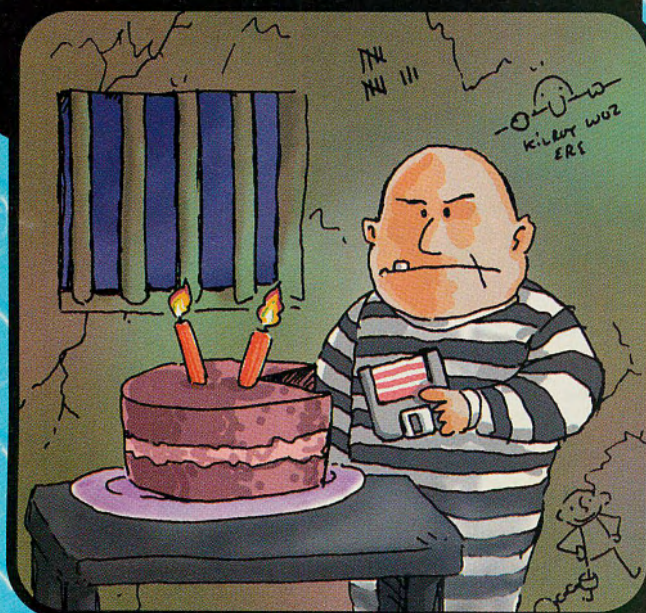
"People spend a lifetime developing recognition of a name, and then somebody just swoops in from a trailer in Florida and costs them time and thousands of dollars."

—Julian Lennon's business partner Todd Meagher, in a May 6 *San Francisco Chronicle* article that mentioned Lennon's recent haggling with Denny Hammerton, a domain name speculator who had registered the name <http://www.johnlennon.com> before offering it to Lennon for \$25,000. When Hammerton, who hopes to raise enough cash from his business to finance his dream of building inflatable homes for the homeless, separated from his wife, the vengeful divorcée gave Lennon the site for free. Imagine that.

## For Love or Money

"God knows he makes enough money, but he's gracious enough to say don't pay me until we get the stock up. Apple's shareholders should be so lucky." —Igor Sill, president of a San Francisco-based venture capital firm, applauding Netscape Communications chief executive Jim Barksdale's decision to accept only \$1 in salary this year. Barksdale's gesture was a show of faith designed to raise company morale over falling stock prices. Barksdale earned \$100,000 last year. Apple's Gible made \$2.8 million.

NEXT YEAR WHEN MURRAY ASKS FOR A HIDDEN FILE IN HIS CAKE, HE WILL BE A LITTLE MORE SPECIFIC.



Doodle by Mark Simmons

## THE REALITY CHECK IS IN THE EMAIL

"It seems all the Arabic public were waiting for this; they are very enthusiastic." —Iyad Awad, representative for the Iraqi company that set up Saddam Hussein's first official home page (<http://chat.com.jo/iraq>), on the email messages flooding Hussein's new mailbox. Because there are no Internet facilities in Iraq, Hussein's email arrives 500 miles away in neighboring Jordan and is sent to him by driver when enough messages pile up. Smoke signals, Morse code, and messages in bottles may still be speedier means of contacting Iraq's fearless leader.



## No Hard Feelings, Right, Steve?

"Focusing is about saying no. You say no and you piss off people, and they go off and tell the *San Jose Mercury News*, and they write a nasty story about you, and it's a real pisser." —Apple co-founder Steve Jobs, complaining about press coverage of Apple's decision earlier this year to cancel research on promising technologies, such as OpenDoc, in a question-and-answer session at Apple's World Wide Developer's Conference in May '97. We hope he never finds out what we say about his hair.



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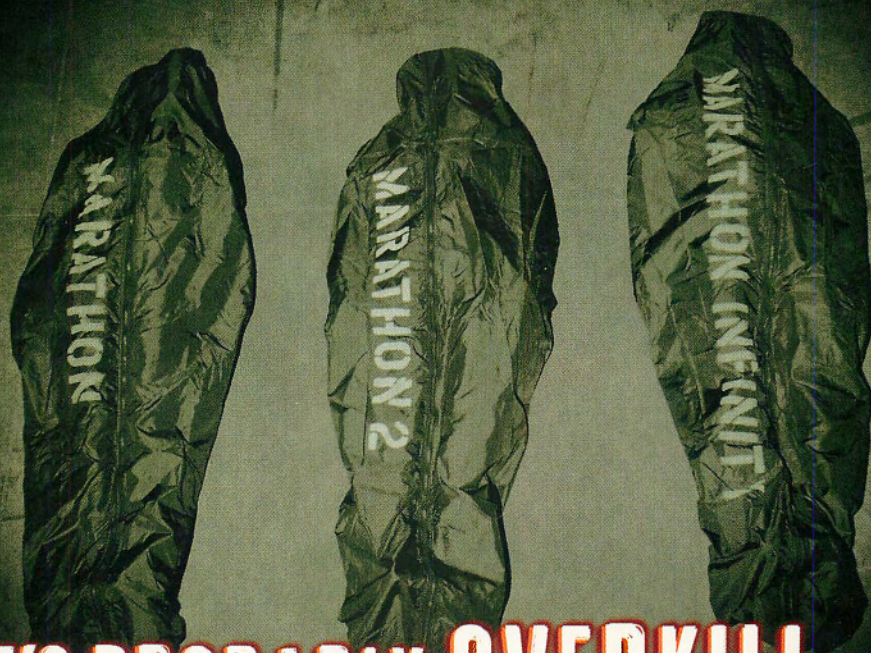
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